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NLS Discussion Papers

A Study of Intercohort Change in Women's Work Patterns and Earnings

Anne Hill
June E. O'Neill

December 1990

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A STUDY OF INTERCOHORT CHANGE IN WOMEN'S WORK PATTERNS AND EARNINGS

M. Anne Hill and June E. O'Neill

Center for the Study of Business and Government
Baruch College

FINAL REPORT

December 1990

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EXECUTIVE SUMMARY

After remaining virtually constant during the post-World War II period, the ratio of women's earnings to men's increased sharply during the 1980's, rising from 59.7 percent in 1979 to 68.5 percent in 1989. The failure of the overall wage gap to narrow during the 1950-1980 period has been something of a puzzle. The labor force participation of women had escalated over the entire post World War II period, the women's movement had blossomed, and barriers to women's entry into many professions and occupations appeared to have eroded. Yet, overall women's relative earnings did not rise through the 1960s and 1970s.

Explanations for the apparent paradox have pointed out that during the post War period of rapid increases in the proportion of women who work, the experience level and other work related attributes of the average employed women did not increase, as less experienced women joined the ranks of the employed. The failure of the wage gap to narrow before 1980, therefore, can be partly explained by the failure of women's lifetime work experience to rise as new labor force entrants lowered the work experience of the average working woman.

Quite the opposite phenomenon may underlie the increase in women's relative earnings in the 1980s. Indeed, one explanation for this recent development is that there has been an intercohort increase in the continuity of women's labor force participation resulting in a greater accumulation of work experience. The fact that the recent gains in women's relative wages have been larger among younger women suggests that intercohort trends in human capital acquisition are important and that more recent cohorts of women have gained relative to men in terms of marketable skills.

Yet because women are heterogeneous with respect to lifetime experience, changes in accumulated work experience cannot be measured using standard cross-sectional data. Longitudinal or retrospective data on life-cycle experience are crucial for studying issues related to women's labor supply, human capital formation, and earnings. This research utilizes data from the three continuing panels of the National Longitudinal Surveys (NLS) -- the mature women, the young women, and the youth cohort -- to measure accumulated years of work experience and to examine changes in life-cycle work patterns across successive cohorts of women born between 1923 and 1964.

This study has investigated how these successive cohorts of women have changed with respect to their accumulation of work-related skills, in terms of level of schooling, career orientation, and attachment to the labor force. We consider how the nature of entry into and exit from the labor force changed across cohorts and how the response of women's labor force participation decisions to life-cycle events (e.g., marriage, the birth of a child, divorce) may have changed. Intercohort changes in women's returns to work experience, schooling, and other human capital investments are also considered. This research has yielded important insights into the nature and determinants of the work patterns and earnings of American women.

Our comparison of human capital and demographic characteristics across these seven cohorts of women has illuminated the dramatic changes in labor market experience and its correlates. Labor force participation, whether

measured at a point in time or over the lifetime has increased markedly for white women, with black women experiencing slight increases or declines. For working and nonworking women combined, the cumulative years during which an individual has worked at least six months has risen, although the average level of experience of employed women has grown more slowly or has actually declined. While some of this slower growth can be attributed to the lower levels of experience held by new entrants and the rapid increase in the number of new entrants (as signalled by the rise in survey week participation rates), rising levels of schooling have also diminished the number of post-schooling years within which women (at a fixed age) could have worked.

Along with rising levels of investment in education, these cohorts of women have experienced dramatic demographic changes. A larger proportion of each cohort remains unmarried and more women continue to be childless. Moreover, the number of children ever born among these women has declined sharply, with women in the earlier cohorts bearing three to four children and more recent cohorts giving birth to two to three children.

We have examined the determinants of work experience using two models. For the NLSY and the NLS young women, we were able to estimate the multiple spell hazard rate model of work status transitions. Moreover, we have examined, for all cohorts, ordinary least squares regressions of the proportion of possible years worked as of a given age.

Both the duration model and the lifetime participation model yield strikingly similar results. During the period 1967 to 1987, the length of work spells and the proportion of the lifetime worked have increased. These changes are strongly related to rising levels of schooling, delayed childbearing and reductions in fertility, and transformations in marriage patterns. Results from the duration models imply that labor supply responses are becoming increasingly sensitive to schooling and prior work experience (especially among black women). And for white women, much of the intercohort change in lifetime participation appears to result from dramatic fertility declines. Yet the estimates from pooled models for lifetime participation indicate that, holding constant the effects of the independent variables, there remains a strong, statistically significant effect of the passage of time. Even with identical characteristics, women from more recent cohorts are spending a higher proportion of their time at work in the market.

Finally, we have estimated wage models for these cohorts of women to investigate whether or not experience-wage profiles have grown steeper over time. Our results provide evidence that work-related investments have increased from cohort to cohort among white women, although not necessarily for all cohorts of black women. And while we cannot determine from our analysis the extent to which women or their employers are responsible for the increased levels of investment, the former pattern of flat age-earnings profiles for women -- the dead-end job syndrome -- finally appears to have been overcome, which bodes well for future narrowing of the gender wage gap.

A STUDY OF INTERCOHORT CHANGE IN WOMEN'S WORK PATTERNS AND EARNINGS

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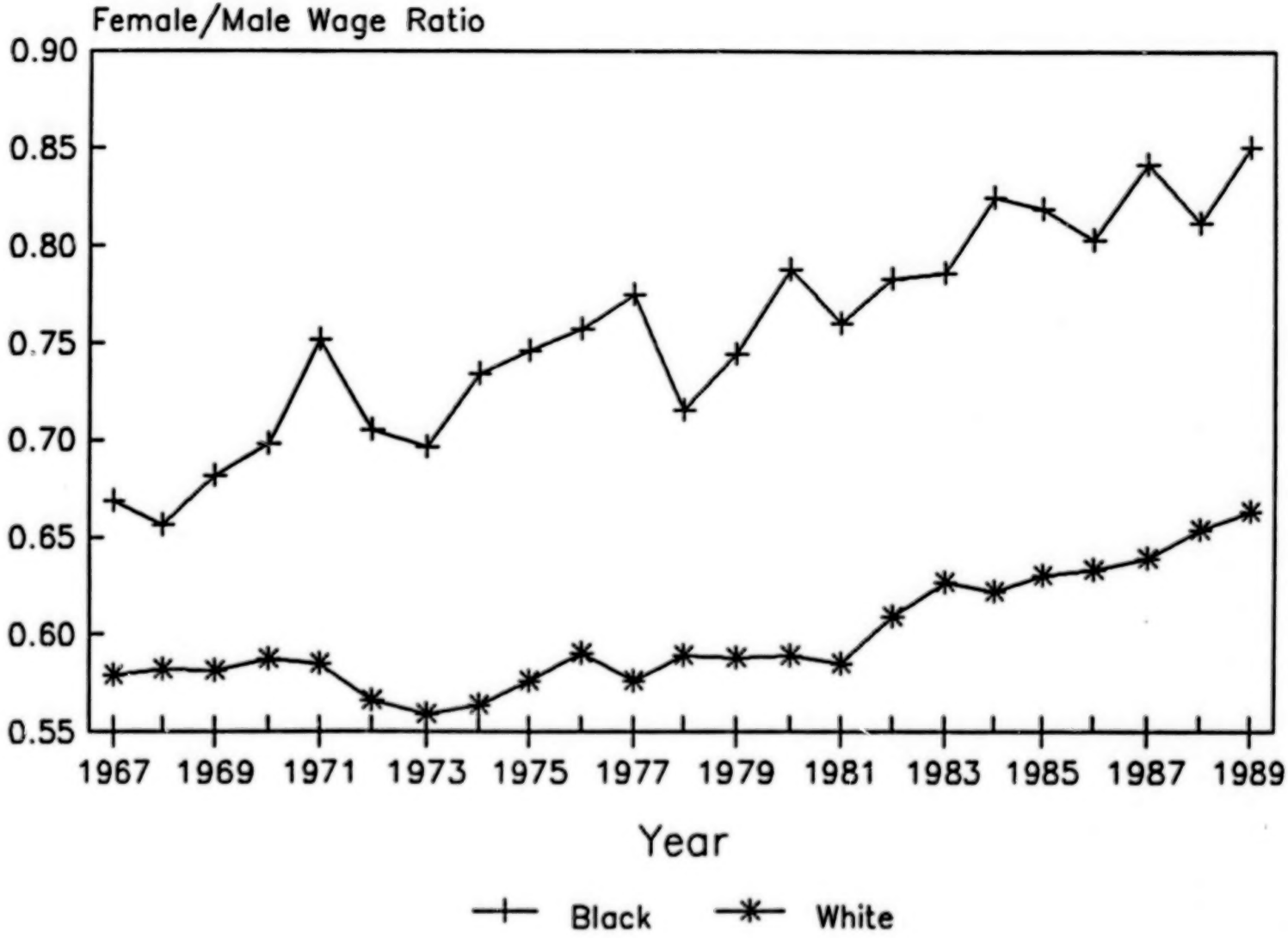
I. INTRODUCTION

After remaining virtually constant during the post-World War II period, the ratio of women's earnings to men's increased sharply during the 1980's, rising from 59.7 percent in 1979 to 68.5 percent in 1989 (based on the annual earnings of full-time year-round workers aged 16 years and over). As Figure 1 indicates, relative wage gains were experienced both by black women and white women in the 1980s. However, the wage gap between black women and men began to narrow several decades ago and it has been smaller than the gap between white women and men since the 1960s.

The failure of the overall wage gap to narrow during the 1950-1980 period has been something of a puzzle. The labor force participation of women had escalated over the entire post World War II period, the women's movement had blossomed, and barriers to women's entry into many professions and occupations appeared to have eroded. Yet, overall women's relative earnings did not rise through the 1960s and 1970s.

Explanations for the apparent paradox have pointed out that during the post War period of rapid increases in the proportion of women who work, the experience level and other work related attributes of the average employed women did not increase, as less experienced women joined the ranks of the employed (Goldin, 1989; O'Neill, 1985; Smith and Ward, 1989). It has been demonstrated in a number of studies that a primary factor underlying the gender gap in wages is the gender differential in the amount and continuity of lifetime work experience (e.g., Mincer and Polachek, 1974, 1978; Corcoran and

Figure 1
Trends in Women's Relative Wages

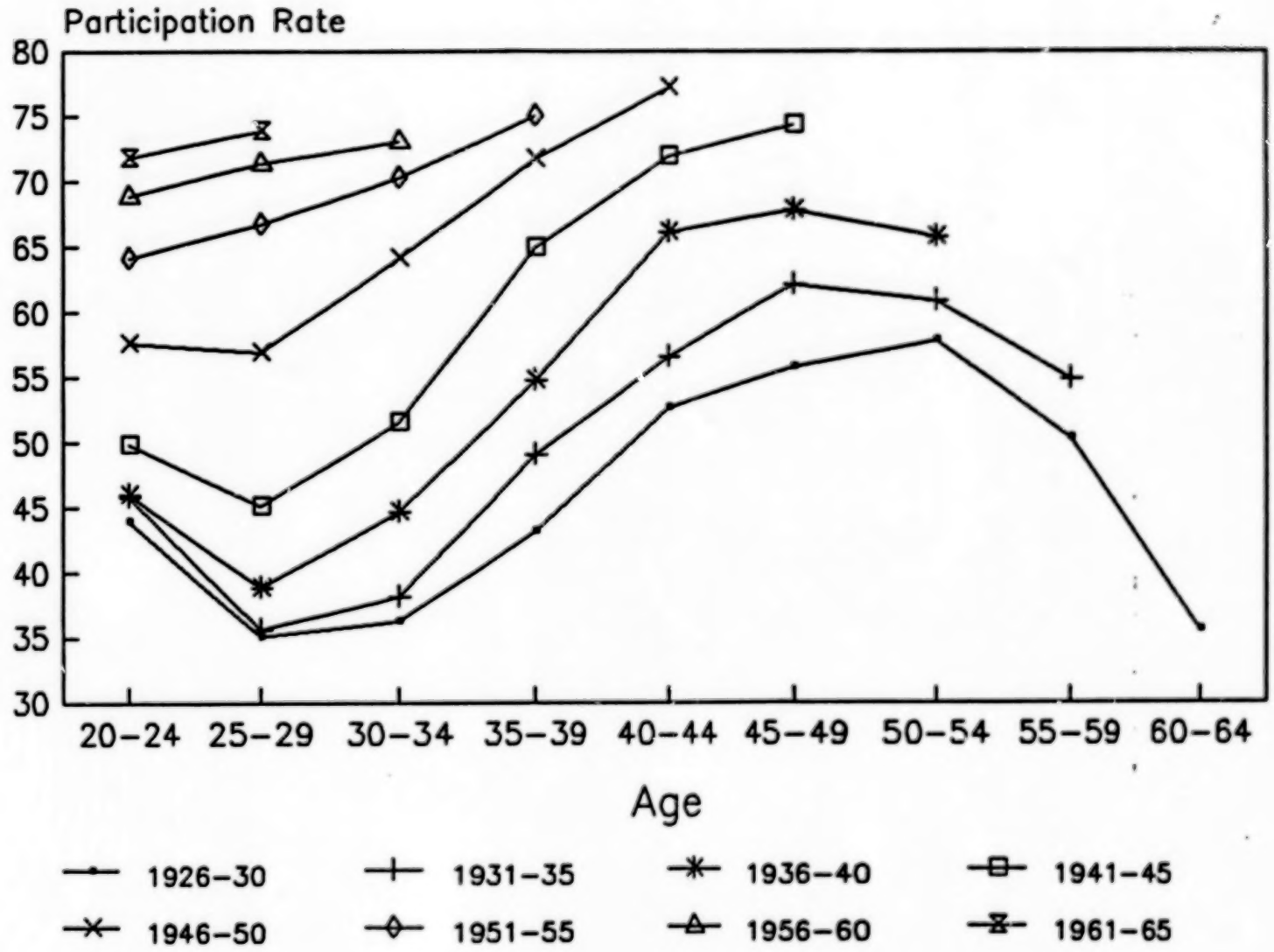


Duncan, 1979). The failure of the wage gap to narrow before 1980, therefore, can be partly explained by the failure of women's lifetime work experience to rise as new labor force entrants lowered the work experience of the average working woman.

Quite the opposite phenomenon may underlie the increase in women's relative earnings in the 1980s. Indeed, one explanation for this recent development is that there has been an intercohort increase in the continuity of women's labor force participation resulting in a greater accumulation of work experience. The fact that the recent gains in women's relative wages have been larger among younger women suggests that intercohort trends in human capital acquisition are important and that more recent cohorts of women have gained relative to men in terms of marketable skills.

Figure 2 illustrates lifetime patterns of labor force participation for successive cohorts of women born between 1926-30 and 1961-65. These cohorts roughly correspond to the panels of women included in the National Longitudinal Surveys which are the focus of this study. For each cohort the figure shows the change in labor force participation rates at different ages in the life cycle. Two observations stand out. One is that there has been a large rise in participation from one cohort to the next at all stages of the life cycle. Second, the shape of the cohort profiles have changed. Among earlier birth cohorts, participation rates decline between ages 20 to 24 and 25-29, reflecting lower levels of labor force activity during ages when young children are present. However, the cohort profiles then rise, particularly between ages 30 to 34 and 45 to 49. Thus, the labor force participation rate of the cohort born 1941-1945 was 45 percent at ages 25 to 29 but rose to 74 percent when they reached ages 45 to 49.

Figure 2
Cohort Participation Rates



When the profile line rises steeply, as it does for the cohort born 1941-45 it is evident that a large proportion of those in the labor force at ages 45 to 49 could not have worked continuously over much of their adult years. By contrast, the cohorts born 1951-55 and thereafter, have much flatter cohort profiles. Their labor force participation is initially high at ages 20 to 24 and continues to rise without experiencing the characteristic dip or the steep rebound of the earlier cohorts. The flatter profiles of these recent cohorts, combined with their high levels of participation hint that a larger proportion of women currently in their thirties have accumulated more years of work experience than was the case among earlier cohorts. Since the younger cohorts have yet to be observed over the life-cycle, the extent to which their participation will eventually decline or will continue to rise throughout the life-cycle remains to be seen.

The fact that the recent gains in women's relative wages have been largest among younger women, and decline systematically with age, suggests that intercohort trends in human capital acquisition are important and that more recent cohorts of women have gained relative to men in terms of marketable skills.[1]

It is important to recognize that changes in accumulated work experience cannot be constructed from the standard cross-sectional data. Because women are heterogeneous with respect to lifetime work experience, longitudinal or retrospective data on life-cycle experience are crucial for studying issues

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[1]Female-male hourly earnings ratios among white full-time workers have changes as follows, by age, from 1977 to 1988: ages 25-34, from 69.4 to 80.3 percent; ages 35-44, from 56.2 to 66.9 percent; ages 45-54, from 54 to 62.8 percent; ages 55-64, 57.8 to 60.8 percent. (U.S. Bureau of the Census, Current Population Survey, March Supplements Public Use Tapes).

related to women's labor supply, human capital formation, and earnings. This research utilizes data from the three continuing panels of the National Longitudinal Surveys (NLS) -- the mature women, the young women, and the youth cohort -- to measure accumulated years of work experience and to examine changes in life-cycle work patterns across successive cohorts of women born between 1923 and 1964.

In this report, we provide detailed descriptive analysis of how marital and fertility patterns, schooling attainment, labor force participation, and work attachment have changed from cohort to cohort. We estimate the factors associated with entry into and exit from the labor force for a given cohort and consider how the responses to these factors compare across cohorts. We also analyze the determinants of lifetime labor force participation and the wages.

We address the following broad questions:

1. How have successive cohorts of women changed with respect to their accumulation of work-related skills? In particular, how have life-cycle patterns of labor force participation changed? And what have been the intercohort changes in schooling levels and in career orientation?

2. What are the factors associated with entry and exit from the labor force for a given cohort and how do the responses to these factors compare across cohorts? Factors potentially influencing the duration of labor force spells include schooling, births, changes in marital status, and changes in labor market conditions.

3. How have returns to work experience, schooling and other human capital investments changed between successive cohorts of women?

The following section describes the data in greater detail and by

comparing changes across cohorts in labor force participation, schooling, marriage and fertility, provides a background for our empirical analysis of the determinants of these changes. The third and fourth sections focus on the estimation of economic models of lifetime work decisions, with section three describing the results for a dynamic work spell model, and section four reporting the results of regressions for the proportion of possible years worked. The fifth section provides estimates of wage models to ascertain the extent to which the underlying intercohort changes in accumulation of human capital have influenced wages.

II. CHANGES IN LIFE-CYCLE LABOR FORCE PATTERNS, SCHOOLING, AND FERTILITY

A. Background

In this section we summarize our findings on intercohort changes in women's patterns of labor force participation at a moment in time and over the life cycle. The basic economic framework for analyzing women's labor supply derives from the family's allocation of its members time among market work, home work, and leisure.[2] The extent of market work depends on the expected remuneration from market work relative to the "shadow wage" from home production. The theory, therefore, predicts that economic growth would increase women's participation in the market provided that the substitution effect of rising relative market wages dominates the income effect of rising family income on leisure (and the demand for home produced goods). Evidence on the dominance of the substitution effect has been found in a number of cross-sectional studies, and some time series studies, using U.S. data as well as data from other countries (e.g., Mincer, 1962; Cain, 1966; Hill, 1983; O'Neill, 1981, and the articles in Layard and Mincer, 1985).[3]

It is unlikely that so fundamental a change as the shift of women's work activity from the home to the market would be a simple story of response to rising wage levels; and it is not. Changes in the labor force participation of women are closely intertwined with changes in fertility and marital stability, and it has proven difficult to separate cause and effect. Some decline in fertility may have been exogenous (for example, due to developments in contraceptives), but to a large extent fertility must surely be a decision

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[2]The pioneering work in this area is that of Mincer (1962).

[3]See also Killingsworth (1983) for a comprehensive survey of empirical results for female labor supply.

jointly determined with labor force participation. The dramatic increase in the divorce rate in the United States also may have some exogenous component associated with liberalization in divorce laws. However, marital instability is also likely to increase as a result of women's rising labor force participation (which reduces the gain to marriage); and labor force participation may in turn increase in response to rising marital instability (and concomitant uncertainty regarding income).

We therefore examine intercohort changes in important variables that are associated with labor force participation -- schooling, marital status, and fertility. Our analysis is based on three unique panel surveys. The following section describes these data.

B. Description of the Data

The data for this analysis have been drawn from two panels of the National Longitudinal Surveys of Labor Market Experience (NLS) -- the mature women and the young women -- and from the panel of young women in the National Longitudinal Survey of Youth (NLSY).

The NLS panel of mature women were born in the years 1923 to 1937 and were first surveyed in 1967, when they were ages 30 to 44. Personal and telephone interviews were conducted at regular intervals over the years (most recently in 1988). The NLS young women, born 1944-53 were interviewed initially in 1968 when they were 14 to 24 years of age. Of the initial sample of 5,083 mature women, an estimated 3,346 remained in the sample in 1986. Among young women, 3,720 of the original 5,159 remained by 1985. The sample of NLSY women numbers 6,282. This panel was born in 1959 to 1965 and was first interviewed in 1979 at ages 14 to 21.

The NLS panels provide a superior source of data for this analysis since

the longitudinal nature of the survey permits direct observations on work experience, earnings, and other related variables. Unfortunately, the surveys of mature women and young women began skipping years in the 1970s, so that a full sequence of annual observations on all variables is not available. However, through the use of retrospective questions, it has been possible to complete much information for the missing years on work experience, fertility, and other important variables. Our methodology for accomplishing this will be described in detail below.

For this analysis, we divide the samples into five-year age cohorts and view these cohorts over time. Combining these groups yields seven cohorts observed at five-year intervals, as outlined in Table 1. As indicated in this table, the NLS Mature Women are observed in 1967, 1972, 1977, and 1982 (and 1968, 1973, 1978, and 1983 for the Young Women). The surveys during these pivotal years were taken using detailed in-person interviews, and they consequently yield greater detail regarding demographic characteristics. Moreover, questions for these years often gleaned retrospective information that can be combined with the panel data to create a complete time series for important variables.

While these surveys include detailed retrospective components for estimating characteristics such as schooling, fertility, and marital status (inter alia), surveys for the mature women, young women, and NLSY differ markedly in the quality of information available regarding years of work experience.

In the initial survey questionnaire for the mature women (in 1967), respondents were asked to report the number of years since completing schooling during which they had worked at least six months. For subsequent

Table 1

NLS and NLSY Cohorts by Age, Survey Year and Cohort Number

	Data Source		
As of Age	Mature Women	Young Women	NLSY
15 to 19		1968 (5)	
			1979 (7)
20 to 24		1968 (4)	
		1973 (5)	
			1982 (6)
25 to 29		1973 (4)	
		1978 (5)	
			1987 (6)*
30 to 34	1967 (3)		
		1978 (4)	
		1983 (5)	
35 to 39	1967 (2)		
	1972 (3)		
		1983 (4)	
40 to 44	1967 (1)		
	1972 (2)		
	1977 (3)		
45 to 49	1972 (1)		
	1977 (2)		
	1982 (3)		
50 to 54	1977 (1)		
	1982 (2)		

*NLSY cohorts 6 and 7 overlap.

years, we define a "work year" as one in which the respondent worked 26 weeks or more (or at least half of the possible weeks if the "weeks worked" question pertains to more than 52 weeks). The sum of retrospective years and observed years worked yields the cumulative years of experience. This measure, defined as years since school completion, can be constructed for both the mature women and the NLS young women. However, both surveys skipped two years during the 1970s for which the NLS failed to obtain weeks worked. The NLS young women's survey in 1978 included a retrospective question asking how many of the past five years had the respondent worked at least six months. For the young women, then, we can infer for most respondents whether or not the two missing years were work years by comparing the response to this retrospective question to the prospective information combined with all employment information available (especially tenure and employment history details). Unfortunately, the detailed 1977 survey of the NLS mature women failed to include a similar retrospective "past five years" question. The available information on items such as tenure and job history rosters provided complete coverage for only a portion of the sample. Consequently, for the mature women, we estimate the number of years worked during the five-year interval 1973 to 1977 by evaluating the proportion of the three known years worked (i.e., 0, 1/3, 2/3, or 1) and assigning that proportion to the remaining two years. The computer programs used to generate these data are available from the authors.

The women from the NLSY are observed annually in the panel. A retrospective question fills in years worked since age 18 for the older members of the sample. Since the NLSY were not asked years worked since school completion, we calculate for them the number of years since age 18 during which they worked at least 26 weeks. Unfortunately, we can construct a

comparable measure for only one other age cohort, NLS young women who were 15 to 19 in 1968 (for whom 1967 data are reported). Because the year left school is not fixed and many women return to school at a later time (which is increasingly so), the measure of years worked since age 18 is likely to be more accurately and consistently reported across individuals and cohorts than the more subjective measure of years worked since leaving school.

C. Descriptive Analysis

1. Work Participation

Participation in labor market activity can be described in several ways. We begin by examining labor force participation rates during the survey week, which are the rates traditionally used by the Bureau of Labor Statistics to measure labor market activity. The labor force participation rate shows the percentage of women in the population who are either employed or unemployed (as opposed to those who are out of the labor force and are not seeking work).

Table 2 illustrates these survey week participation rates by five-year age group, race and survey year. When we compare participation rates of a given age group in different years -- e.g. the group ages 30-34 in 1967, 1978, and 1983 -- we are making an intercohort comparison since we are comparing the rate of cohorts born at different times and reaching the designated age in the years specified.[4] Among white women, participation rates have grown steadily over time at each age level. For example, among white women 30 to 34, 44 percent were participants in 1967. This rate increased to 61.4 percent in 1978 and further to 71.2 percent in 1983.

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[4] By reading down the diagonal one can examine the change in labor force participation rates for a cohort as it ages. For example, the cohort ages 30-34 in 1967 was 35-39 in 1972, 40-44 in 1977, and so on.

Table 2

Survey Week Participation Rates, Weighted

Age	Survey Year 1967 1968	1972 1973	1977 1978 1979	1982 1983	1987
Black					
15-19	32.6		44.7		
20-24	61.9	60.1		65.4	
25-29		63.2	64.0		66.1
30-34	62.3		67.2	75.2	
35-39	69.2	61.8		76.7	
40-44	67.8	61.9	69.5		
45-49		66.0	64.9	67.8	
50-54			63.9	63.8	
NonBlack					
15-19	37.7		55.2		
20-24	58.7	65.8		73.2	
25-29		56.1	67.6		67.2
30-34	44.0		61.4	71.2	
35-39	47.6	53.7		73.2	
40-44	51.0	56.1	62.2		
45-49		57.1	61.2	67.3	
50-54			58.4	59.4	

Source: NLS Surveys of Mature Women, Young Women, and Youth.

The picture for black women differs. In the earliest period, black women's participation rates were in excess of 60 percent at ages 20 and over and were, for the most part, considerably above the rates of white women. However, during this twenty-year period, black women's participation rates actually declined in the early 1970s and then increased, but more slowly than white women's. Since the 1970s, white women's participation has been well above black women's at younger ages (15 to 24) when the higher fertility of black women is a factor. At ages above 25, participation rates no longer differ between black and white women to any significant degree.

This measure of participation corresponds to activity reported within one week. If there is considerable labor force turnover, the survey week participation rate can underestimate the proportion of women who work at some point during a year, but will overestimate the proportion working a full year. Our interest here, however, is participation over the life cycle. We first estimate lifetime participation in terms of the proportion of years worked since leaving school, defined as the number of years during which the respondent works 26 or more weeks divided by the total number of years since being enrolled full-time in school. Tables 3 and 4 present such lifetime measures first for all women, and then for the group of women who were employed in the survey week.

Among all white women, the proportion of years worked has increased systematically, with rises corresponding to those in the survey week rates. In fact, the survey week participation rates are quite similar to the lifetime

Table 3

Proportion of Years Worked Since Leaving School, or Since Age 18, All Women, Weighted

	Since Leaving School				Since Age 18	
Age	1967 1968	1972 1973	1977 1978	1982 1983	1978	1987
Black						
25-29		0.463	0.564		0.486	0.516
30-34	0.556		0.557	0.574		
35-39	0.560	0.550		0.577		
40-44	0.599	0.587	0.579			
45-49		0.658	0.618	0.603		
50-54			0.618	0.621		
NonBlack						
25-29		0.523	0.663		0.583	0.673
30-34	0.463		0.559	0.621		
35-39	0.453	0.466		0.568		
40-44	0.454	0.462	0.494			
45-49		0.461	0.488	0.519		
50-54			0.476	0.506		

Source: NLS Surveys of Mature Women, Young Women, and Youth.

Table 4

Proportion of Years Worked Since Leaving School, or Since Age 18, Employed Women, Weighted

	Since Leaving School				Since Age 18	
Age	1967 1968	1972 1973	1977 1978	1982 1983	1978	1987
Black						
25-29		0.626	0.741		0.640	0.634
30-34	0.672		0.718	0.732		
35-39	0.643	0.670		0.704		
40-44	0.730	0.685	0.698			
45-49		0.723	0.706	0.738		
50-54			0.748	0.711		
NonBlack						
25-29		0.699	0.822		0.703	0.753
30-34	0.645		0.730	0.755		
35-39	0.610	0.612		0.693		
40-44	0.594	0.600	0.638			
45-49		0.576	0.622	0.651		
50-54			0.612	0.635		

Source: NLS Surveys of Mature Women, Young Women, and Youth.

measures, although they diverge somewhat in recent years.[5] For example, the survey week participation rate for white women 35 to 39 was 47.6 percent in 1967 and the lifetime rate for the same group was then 45.3 percent. The lifetime rate has increased more slowly than the survey week rate, rising to 56.8 percent for women 35 to 39 years old in 1983, while the corresponding participation rate was 73.2 percent. Among black women, lifetime participation rates have changed in ways similar to the survey week rate: falling slightly among the older groups and increasing slightly among the younger groups.

Table 4 presents these lifetime participation rates for the subgroup of women who were employed during the survey week. If women were perfectly homogeneous so that employed women had the same prior work experience as those out of the labor force the rate for the employed would be the same as the rate for all women. However, this is not the case. Across all race and age groups, the rates for employed women exceed those for all women, implying that women who are currently working are much more likely to have been working (26 weeks or more) in prior years. For example, currently employed white women ages 30 to 34 in 1983 had worked 75.5 percent of all possible years since completing school, while the average for all women was 62.1 percent. These rates have increased among all white women, though the effect is largest at younger ages, and among younger black women. This implies that the average working woman in the late 1970s and early 1980s possessed higher levels of

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[5]The lifetime participation rate for all women (employed and non-employed) would be equivalent to the average of the survey week participation rates in each year over the cohort's years since leaving school if the lifetime rate were defined as the proportion of years worked one week or more. Our estimate is more restrictive since it counts a year of work if 26 or more weeks were worked during the year.

prior work experience than her counterpart in the last 1960s. It is also noteworthy that at ages 40 and over black working women have considerably more prior work experience than white women although that difference has been narrowing.

We consider also the distribution of the proportion of years worked, displayed in Tables 5 and 6 for black and white women, respectively. Considering black women at ages 40 and older, rising proportions have worked more than half of all possible years since completing schooling, although the proportion of women working all possible years has fallen among these groups. For example, in 1967, 13.3 percent of all black women 40 to 44 had worked each year since completing school. This share fell to 6.4 percent by 1977. Among the younger groups of black women, there appears to be greater heterogeneity, and this diversity is increasing somewhat. For example, while the proportion of black women 30 to 34 who worked some (but not all) years remained stable, the proportion working all years rose from 9.3 percent in 1967 to 11.4 percent in 1983. Also, the proportion working no years rose from 6.0 percent to 8.1 percent during the same period.

Table 6 indicates that the patterns in these proportions for white women are reasonably consistent, with a rising proportion of women at all ages working more than half of all possible years, and generally, falling proportions of women who have never worked. It is interesting to note that, especially among younger black women, there are higher proportions who have never worked than among white women.

2. Cumulative Years of Work Experience

We turn to consider the effect that the dramatic increases in labor

Table 5

Percent Distribution of Black Women by Proportion of Years Worked

	Since Leaving School				Since Age 18	
Age	1967 1968	1972 1973	1977 1978	1982 1983	1978	1987
25-29						
0		24.7	14.0		14.4	13.4
.01-.49		26.0	26.5		33.1	30.9
.50-.99		38.2	37.4		47.0	45.9
1		11.1	22.1		5.6	9.8
30-34						
0	6.0		13.0	8.1		
.01-.49	32.1		26.0	28.7		
.50-.99	52.6		48.6	51.8		
1	9.3		12.4	11.4		
35-39						
0	4.9	3.2		6.8		
.01-.49	36.9	35.4		31.4		
.50-.99	48.3	55.7		54.5		
1	9.9	5.8		7.4		
40-44						
0	2.1	2.3	1.9			
.01-.49	35.7	35.3	35.4			
.50-.99	48.8	55.6	56.2			
1	13.3	6.8	6.4			
45-49						
0		1.5	1.2	1.9		
.01-.49		32.5	32.5	32.0		
.50-.99		58.4	59.1	61.2		
1		7.7	7.2	4.9		
50-54						
0			0.7	1.2		
.01-.49			31.3	29.2		
.50-.99			60.0	61.5		
1			8.0	8.2		

Source: NLS Surveys of Mature Women, Young Women, and Youth.

Table 6

Percent Distribution of Nonblack Women by Proportion of Years Worked

	Since Leaving School				Since Age 18	
Age	1967 1968	1972 1973	1977 1978	1982 1983	1978	1987
25-29						
0		17.5	6.0		5.3	4.5
.01-.49		25.4	22.0		29.2	21.1
.50-.99		40.0	41.3		54.7	51.2
1		17.1	30.6		10.8	23.2
30-34						
0	5.2		6.9	2.5		
.01-.49	52.7		33.6	28.6		
.50-.99	31.8		46.5	56.6		
1	10.3		13.0	12.3		
35-39						
0	3.7	3.0		4.5		
.01-.49	56.1	53.0		35.8		
.50-.99	30.6	37.2		51.2		
1	9.6	6.8		8.5		
40-44						
0	2.8	3.0	1.4			
.01-.49	56.8	55.3	51.1			
.50-.99	33.8	35.9	40.7			
1	6.6	5.8	6.8			
45-49						
0		1.7	1.5	0.4		
.01-.49		57.0	53.0	46.7		
.50-.99		37.5	41.0	47.1		
1		3.8	4.6	5.8		
50-54						
0			0.9	0.6		
.01-.49			55.0	48.4		
.50-.99			40.7	47.2		
1			3.6	3.7		

Source: NLS Surveys of Mature Women, Young Women, and Youth.

force participation have had on cumulative years of work experience. Table 7 displays for all women the average cumulative years since leaving school during which the respondents worked 26 weeks or more by cohort and race. Among all black women the average level of experience has either fallen or remained steady through this period. For example, women 35 to 39 possessed, on average, 11.2 years of experience in 1967 and only 9.7 in 1983. All white women, however, have gained experience, with increases of roughly one year on average among all groups. And while older black women exhibit higher levels of experience on average, years of work experience among younger white women has begun to exceed that of their black counterparts.

Table 8 restricts the sample to women who were employed in the survey week and considers how levels of cumulative experience among employed women has changed. Levels of work experience among employed women clearly exceed the population average, and experience gains have been modest among employed white women, with declines experienced by some groups. The patterns among currently employed black women reflect the changes in the overall population. In 1982 (or 1983), employed black women in most age groups possess fewer years of experience than did similar women in earlier years.

Table 9 displays the cumulative years of experience since age 18, which we calculate for the NLSY and for the youngest group of the NLS young women. We also present data for men from the NLSY. Among black women 25 to 29, the average years of experience since age 18 increased for the entire population by one-tenth of one year between 1978 and 1983, from 4.4 to 4.5, but actually fell for the average employed black woman. For white women, average experience increased both for the average employed woman and the average woman overall, although by a smaller amount for employed women.

Table 7

Cumulative Years of Experience Since School Completion, All Women, Weighted

Age	Survey Year 1967 1968	1972 1973	1977* 1978 1979	1982* 1983
Black				
25-29		3.6	4.0	
30-34	8.6		6.4	7.3
35-39	11.2	11.1		9.7
40-44	15.0	14.5	14.4	
45-49		18.2	18.2	18.1
50-54			21.5	21.5
NonBlack				
25-29		3.7	4.4	
30-34	6.6		6.4	7.7
35-39	8.8	9.0		9.5
40-44	11.2	11.3	12.0	
45-49		13.7	14.4	15.1
50-54			16.5	17.4

*Mature women's years of experience calculated using ratio method.

Source: NLS Surveys of Mature Women, Young Women and Youth.

Table 8

Cumulative Years of Experience Since School Completion, Employed Women, Weighted

Age	Survey Year 1967 1968	1972 1973	1977* 1978 1979	1982* 1983
Black				
25-29		4.9	5.1	
30-34	10.2		8.1	9.3
35-39	12.6	13.2		11.7
40-44	18.1	16.6	17.1	
45-49		21.7	20.6	21.9
50-54			25.8	24.4
NonBlack				
25-29		4.7	5.2	
30-34	9.2		8.2	9.3
35-39	11.9	11.9		11.5
40-44	14.6	14.6	15.4	
45-49		17.0	18.2	18.9
50-54			21.0	21.9

*Mature women's years of experience calculated using ratio method.

Source: NLS Surveys of Mature Women, Young Women, and Youth.

Table 9

Cumulative Years of Experience Since Age 18, by Employment Status
(Weighted)

	Women			Men
Age	1978	1983	1987	1987
Black				
25-29				
All	4.4		4.5	5.8
Employed	5.7		5.5	6.2
Out of the Labor Force	2.2		2.6	4.0
30-34				
All		7.7		
Employed		9.9		
Out of the Labor Force		3.5		
NonBlack				
25-29				
All	5.2		5.9	6.9
Employed	6.3		6.5	7.2
Out of the Labor Force	3.8		4.5	5.4
30-34				
All		8.5		
Employed		10.3		
Out of the Labor Force		5.7		

Source: NLS Surveys of Mature Women, Young Women, and Youth.

This comparison of years of experience between all women and currently employed women clearly indicates that while labor force participation has been rising rapidly and the cumulative years of work experience have increased for the population of all women, experience for the average employed woman has undergone slower growth, and in some cases has even declined.

Yet some of these apparent declines in work experience since schooling (and as of a given age) may reflect the rising levels of education attained by these groups of women, and consequently, fewer years within which to work at any fixed age. We turn now to consider changes in schooling attainment.

3. Years of Schooling

As Table 10 indicates, level of women's schooling has increased considerably during this period. Rising levels of educational attainment have been achieved by black and white women in all age groups, with gains as large as two years for some groups. Perhaps more notable than the overall growth is the educational gains that black women have made relative to white women of similar ages. The schooling difference has narrowed from 1.0 to 1.5 years in 1967-68 to 0.2 to 0.9 years among the most recent groups of women under 35.

Table 11 reports schooling attainment levels for currently employed women. Working women are, on average, better educated than in the population at large, with one-third to one-half years more schooling attained than the average for all women.

4. Changes in Marital Status and Fertility

Rising investments in human capital and labor force attachment can be expected to affect (and be influenced by) marital status and fertility. Table 12 exhibits the proportion of the cohort that has never married by given

Table 10

Years of Schooling Completed by All Women, Weighted

Age	Survey Year 1967 1968	1972 1973	1977 1978 1979	1982 1983	1987
Black					
15-19	9.95		9.56		
20-24	11.37	11.65		12.35	
25-29		11.57	12.15		12.72
30-34	10.27		11.67	12.38	
35-39	10.29	10.54		11.69	
40-44	9.77	10.44	11.12		
45-49		10.13	10.91	11.07	
50-54			10.52	10.72	
NonBlack					
15-19	10.48		9.70		
20-24	12.46	12.63		12.53	
25-29		12.76	13.11		13.10
30-34	11.79		12.99	13.27	
35-39	11.60	12.08		13.21	
40-44	11.17	11.88	12.20		
45-49		11.37	12.05	12.32	
50-54			11.53	12.16	

Source: NLS Surveys of Mature Women, Young Women, and Youth.

Table 11

Years of Schooling Completed by Employed Women, Weighted

Age	Survey Year 1967 1968	1972 1973	1977 1978 1979	1982 1983	1987
Black					
15-19	10.42		10.70		
20-24	11.89	11.92		12.81	
25-29		12.11	12.72		13.21
30-34	10.18		12.41	12.99	
35-39	10.89	11.08		12.38	
40-44	10.38	11.12	11.62		
45-49		10.57	11.60	11.51	
50-54			11.27	11.38	
NonBlack					
15-19	11.34		10.25	12.88	
20-24	12.64	12.71			
25-29		13.31	13.54		13.42
30-34	11.83		13.30	13.54	
35-39	11.57	12.22		13.53	
40-44	11.28	11.99	12.50		
45-49		11.60	12.42	12.68	
50-54			11.96	12.46	

Source: NLS Surveys of Mature Women, Young Women, and Youth.

Table 12

Proportion of Cohort Never Married, Weighted

Age	Survey Year 1967 1968	1972 1973	1977 1978 1979	1982 1983	1987
Black					
15-19	0.92		0.98		
20-24	0.51	0.57		0.77	
25-29		0.25	0.39		0.53
30-34	0.12		0.21	0.29	
35-39	0.04	0.09		0.18	
40-44	0.07	0.03	0.08		
45-49		0.05	0.02	0.09	
50-54			0.05	0.02	
NonBlack					
15-19	0.94		0.95		
20-24	0.45	0.44		0.59	
25-29		0.12	0.18		0.28
30-34	0.05		0.08	0.11	
35-39	0.05	0.04		0.07	
40-44	0.04	0.04	0.03		
45-49		0.03	0.04	0.03	
50-54			0.03	0.03	

Source: NLS Surveys of Mature Women, Young Women, and Youth.

ages. At all ages younger than 40, white women have experienced declining marriage rates. In 1967, only 5 percent of white women had never married by age 30 to 34. This proportion has more than doubled (to 11 percent) in 1983. While 12 percent of women 25 to 29 had never married in 1973, 28 percent remained never married as of this age in 1987. And among black women, the proportion who never married rose even more sharply during this period, e.g., from 25 percent to 53 percent among black women 25 to 29 and from 12 percent to 29 percent among women 30 to 34.

Among black and white women under 40, the proportion of women who remained childless also rose during this period, as illustrated in Table 13. While only 7.5 percent of black women 35 to 39 had no children in 1967, 14.7 percent had no children by these ages in 1983. Comparable declines in childbearing were experienced by white women. And while working women are more likely than average to be childless, these proportions have also risen, as illustrated in Table 14. An increase in the proportion of women who have no children at a given age can signal either delayed childbearing or reduced total fertility, or both. Tables 15 and 16 illustrate the numbers of children ever born to all women and employed women, respectively. These data indicate striking reductions in total fertility for women younger than 40. Average declines in children born are highest among black women. For example, by ages 35 to 39, women in 1967 had borne 4.6 children yet only 2.6 in 1983. Black women 30 to 34 had already given birth to almost 4 children in 1967, and only to about 2 in 1983. Throughout this period, working women have borne fewer children than average (data for them are depicted in Table 16). However, difference between the number of children ever borne by working women and all women has narrowed recently, as women with children have increased their work

Table 13

Percentage of Women with No Children By Age and Race, All Women, Weighted

	Survey Year				
Age	1967 1968	1972 1973	1977 1978 1979	1982 1983	1987
Black					
20-24		0.433		0.504	
25-29		0.210	0.204		0.303
30-34	0.058		0.160	0.134	
35-39	0.075	0.053		0.147	
40-44	0.182	0.064	0.053		
45-49		0.175	0.064	0.059	
50-54			0.179	0.064	
NonBlack					
20-24		0.701		0.737	
25-29		0.327	0.429		0.483
30-34	0.116		0.201	0.267	
35-39	0.102	0.093		0.156	
40-44	0.117	0.094	0.092		
45-49		0.114	0.093	0.086	
50-54			0.114	0.090	

Source: NLS Surveys of Mature Women, Young Women, and Youth.

Table 14

Percentage of Employed Women with No Children, Weighted

Age	Survey Year 1967 1968	1972 1973	1977 1978 1979	1982 1983	1987
Black					
20-24		0.446		0.646	
25-29		0.277	0.280		0.384
30-34	0.078		0.189	0.163	
35-39	0.087	0.075		0.144	
40-44	0.222	0.083	0.058		
45-49		0.179	0.086	0.077	
50-54			0.225	0.083	
NonBlack					
20-24		0.824		0.847	
25-29		0.539	0.610		0.614
30-34	0.241		0.320	0.379	
35-39	0.179	0.139		0.209	
40-44	0.178	0.129	0.125		
45-49		0.142	0.109	0.094	
50-54			0.134	0.102	

Source: NLS Surveys of Mature Women, Young Women, and Youth.

Table 15

Number of Children Ever Born, By Age and Race, All Women, Weighted

Age	Survey Year 1967 1968	1972 1973	1977 1978 1979	1982 1983	1987
Black					
20-24		0.998		0.766	
25-29		2.318	1.672		1.369
30-34	3.990		2.490	2.076	
35-39	4.637	4.302		2.602	
40-44	3.279	4.798	4.276		
45-49		3.313	4.736	4.439	
50-54			3.243	4.927	
NonBlack					
20-24		0.423		0.370	
25-29		1.269	1.017		0.928
30-34	2.753		1.791	1.543	
35-39	2.928	2.990		2.003	
40-44	2.933	3.036	3.050		
45-49		2.962	3.043	3.087	
50-54			2.967	3.069	

Source: NLS Surveys of Mature Women, Young Women, and Youth.

Table 16

Number of Children Ever Born, By Age and Race
Employed Women, Weighted

Age	Survey Year 1967 1968	1972 1973	1977 1978 1979	1982 1983	1987
Black					
20-24		0.863		0.500	
25-29		1.690	1.292		1.085
30-34	3.342		2.227	1.725	
35-39	4.205	3.832		2.464	
40-44	2.604	4.239	3.792		
45-49		2.860	4.024	3.863	
50-54			2.680	4.343	
NonBlack					
20-24		0.240		0.208	
25-29		0.791	0.625		0.625
30-34	2.188		1.379	1.171	
35-39	2.449	2.558		1.760	
40-44	2.421	2.718	2.769		
45-49		2.646	2.899	2.879	
50-54			2.673	2.950	

Source: NLS Surveys of Mature Women, Young Women, and Youth.

participation.

D. Summary

Our comparison of human capital and demographic characteristics across these seven cohorts of women has illuminated the dramatic changes in labor market experience and its correlates. Labor force participation, whether measured at a point in time or over the lifetime has increased markedly for white women, with black women experiencing slight increases or declines. For working and nonworking women combined, the cumulative years during which an individual has worked at least six months has risen, although the average level of experience of employed women has grown more slowly or has actually declined. While some of this slower growth can be attributed to the lower levels of experience held by new entrants and the rapid increase in the number of new entrants (as signalled by the rise in survey week participation rates), rising levels of schooling have also diminished the number of post-schooling years within which women (at a fixed age) could have worked.

Along with rising levels of investment in education, these cohorts of women have experienced dramatic demographic changes. A larger proportion of each cohort remains unmarried and more women continue to be childless. Moreover, the number of children ever born among these women has declined sharply, with women in the earlier cohorts bearing three to four children and more recent cohorts giving birth to two to three children.

III. DETERMINANTS OF THE DURATION OF WORK AND NON-WORK SPELLS

We have observed dramatic changes in fertility, marital status, and schooling, along with equally striking intercohort increases in work attachment, whether measured by contemporaneous participation or lifetime experience. We employ two methodologies to help sort out the influences of demographic changes on women's life-cycle labor supply behavior. In this section we estimate, for NLS Young Women and the NLSY, a multiple spell hazard rate model of exits from work and non-work spells. Unfortunately, the requirements of the multiple spell model outstripped the data available from the Mature Women's sample. However, in our second approach we estimate for all cohorts the determinants of the proportion of the lifetime worked as of a given age. These results are described in Section IV which follows.

A. Multiple Spell Hazard Rate Model

This research builds on recent work using longitudinal data to analyze labor supply behavior and the implications of labor force patterns for the wage gap.[6] Notable among them is Donohue (1987) who uses NLS data to estimate the duration of the first post-schooling job for samples of young men and women from two four-year periods, 1968-1971 and 1979-1982, reflecting different cohorts. His results indicate that for the more recent cohort the early labor force behavior of young women appears virtually identical to that of young men.

Donohue reports that in the early period, young women appear to leave their first jobs at considerably higher rates than do young men. However, in

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[6]See also work on dynamic labor supply, e.g., Heckman and MaCurdy (1980) and Flinn and Heckman (1982, 1983).

the later period, the early labor force behavior for young women appears virtually identical to that of young men. Especially, the distribution by job tenure and occupation, and the behavioral estimates of his hazard rate model differ little by gender. The closing of the "first-job tenure gap" appears associated with narrowing the wage gap. For his sample, Donohue reports that the female-male wage ratio for white high school graduates of 77 percent for 1968-1971 rises to 89 percent by 1979-82. Donohue hypothesizes that the increasing similarity in behavior derives both from greater labor force attachment of young women as well as from increases in the age at marriage and first birth.

Other recent studies that should be noted are Felmlee (1984) who uses the NLS panel of Young Women (1968-1973) and continuous-time modelling to analyze the process by which young women leave employment to become unemployed or to exit the labor force. She separates labor force transitions out of employment due to pregnancy and transitions made for other reasons and among the latter category, further separates voluntary from involuntary exits. Meitzen (1986) uses data from the Employment Opportunities Pilot Programs (EOPP) Employers' Survey to estimate a continuous-time model of male and female quitting behavior. The EOPP data, which were collected March-May 1980 include recently hired women with 2.5 or fewer years of tenure in the firm. Meitzen reports that the possibility of quitting a job declines with tenure for men and increases with tenure for women. However, his model includes only one duration parameter, forcing a monotonic relationship between tenure and the likelihood of quitting. Blank (1988) uses PSID data to estimate a competing risks model for transitions into and out of both full-time and part-time work. She finds age, number of children, race, and education to be

important determinants of labor force movements. This research illustrates the importance of treating female labor force decisions within the context of a dynamic model. A single cross-section of data can yield little insight into the heterogeneity among women in their life-cycle patterns of work.

1. Methodology

Our theoretical model follows work by others on dynamic labor supply, especially that of Heckman and MaCurdy (1980) and Flinn and Heckman (1982, 1983).[7] These models generalize one-period models of labor force participation in a straightforward manner. Suppose that we define $W_r(t)$ as the marginal rate of substitution between goods and leisure if the woman is not working and $W(t)$ as her market wage rate. Let $I(t)$ be an index function defined by:[8]

$$I(t) = W(t) - W_r(t).$$

If $I(t) \geq 0$ then the woman chooses to work in the market and we set a work dummy $d(t) = 1$. If $I(t) < 0$, she chooses not to work and $d(t) = 0$. The object of our model is to explain variation in the number of consecutive years a woman is working. Similarly we would like to explain the variation in consecutive years not working.

Given the dynamic nature of female labor supply and the availability of event history information we use continuous time methods to model the determinants of exit rates from work and entry rates into work. Estimation of

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[7] See Killingsworth (1983), Killingsworth and Heckman (1986), and MaCurdy (1985) for reviews of dynamic models and empirical results and see Heckman and Singer (1986) for a brief outline of a similar dynamic labor supply model.

[8] This index is analogous to the one-period decision rule common to the labor force participation models of Heckman (1974, 1977), and Cogan (1977), among others.

transition rate (or hazard rate) models has become widespread in economics with applications to a variety of economic events including unemployment (Lancaster, 1979; Flinn and Heckman, 1983), marriage and divorce (Anderson et al. 1987; Menken et al. 1981, fertility (Newman and McCulloch 1984; Heckman, Hotz, and Walker, 1985) and welfare receipt (O'Neill et al., 1987).

Our model focuses on the exit (entrance) probability at year t, conditional on having been in (out of) the labor force for t years. The NLS data include both completed spells, for which the time in the labor force is measured, and censored spells, for which the end of the labor force spell is not yet observed. Maximum likelihood estimation makes full use of the information both for completed and censored work and non-work spells. We use information on all labor force spells for all women, which implies multiple spells for some women.

If we define the instantaneous unconditional probability of exiting the labor force at time t to be $f_w(t)$, where $F_w(t)$ is the corresponding cumulative density and $1-F_w(t)$ the unconditional survivor probability, then the conditional probability of exiting the labor force at time t given participation up to that time -- called the hazard rate -- is given by:

$$h_w(t_w) = f_w(t_w) \;/\; (1-F_w(t_w)) \;.$$

The transition rate from non-work to work h_{nw} can be defined in an analogous manner.

The expected duration of a work spell, e.g., is then:

$$\int_0^\infty \exp\left(-\int_0^t h_w(u_w)\,du\right) dt$$

In order to study the determinants of the hazard rates across individual

women we have begun with a general functional form of the multiple spell model. (See Yi, et al. (1987), Flinn and Heckman (1982, 1983), Heckman and Singer (1986), and also Alison (1984).) The general form of the conditional hazard for the transition out of work state j (= w, nw) for individual i can be written as:

$$h_{ij}(t_{ij} \mid z, \theta) = \exp\{ \gamma_{j0} + z_i \beta_j + \sum_{k=1}^{2} \gamma_{jk} (t_{ij} - 1)^{\lambda_{jk}} / \lambda_{jk} + c_{ij} \theta \}$$

where the z are explanatory variables that include both fixed and time-varying variables and θ measures individual unobserved heterogeneity. Our model has specified the term capturing the effect of duration to be quadratic, with $\lambda_{j1} = 1$ and $\lambda_{j2} = 2$. We initially specified a non-parametric distribution to allow for the effects of unobserved heterogeneity, however, the estimated results differed little from those with no heterogeneity corrections, therefore we present results for models with no heterogeneity controls.

2. Description of the Data for the Multiple Spell Model

We analyze the extent to which the labor force behavior of recent cohorts (and its determinants) has actually changed by comparing the early labor force experience of women who were between the ages of 15 and 19 in 1968 with those who were between the ages of 15 and 19 in 1979. We also consider the cohorts ages 20 to 24 in 1968 and 20 to 24 in 1973. Eight-year samples from the National Longitudinal Surveys of Young Women and Youth form the data base for this analysis. For comparability, the 15 to 19 year old NLS Young Women are followed from 1968 through 1975, while the NLS Youth include observations from the period 1979 through 1986. The 20 to 24 year old groups

from the NLS Young Women are followed from 1968 through 1975 and from 1973 through 1980.

Our objective is to explain variation in the number of consecutive years a woman is working (that is, the duration of a work spell) as well as consecutive years not working. Given the dynamic nature of female labor supply and the availability of event history information we use continuous time methods to model the determinants of exits from work spells as well as from non-work spells.

The NLS data include both completed spells, the duration of which is known, and censored spells, for which the end of the labor force spell is not yet observed. Maximum likelihood estimation makes full use of the information both for completed and censored work and non-work spells. We use information on all spells for all women, which implies multiple spells for some women.[9] The analysis includes those persons who eventually leave the sample if we observe at least three years data for them; their work and non-work spells are treated as being right-censored.

Spell lengths are measured in years; if an individual reports herself to be employed for at least six months of a given year, that year is counted as a work spell year. Otherwise the year is defined as a non-work spell year.[10]

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[9]See Yi, et al. (1987), Flinn and Heckman (1982, 1983), and Heckman and Singer (1986) for descriptions of the multiple-spell hazard rate model and estimation.

[10]The NLS Young Women's sample began skipping years in the late 1970s so a full sequence of annual observations is not available. However, through the use of retrospective questions, it is possible to fill in important information for the missing years. Given the nature of the retrospective questions, we define a work year as one in which the respondent worked at least six months to link the retrospective and prospective data. Unfortunately this definition combines together the states "unemployment" and "out of the labor force" as "non-work."

The explanatory variables, described in Table 17, include both those which are fixed for a given spell and those which vary with time as the spell progresses. Fixed variables consist of years of experience,[11] age, and years of schooling, each measured at the beginning of the spell. Time-varying variables include a dummy variable equal to one if the woman is enrolled in school during the spell year, two time-varying residential dummies which capture Southern and SMSA residence, and vectors of dichotomous marital status and fertility variables, included to capture changes in household composition. These variables are married to not married, not married to married, and married to married. Women who remain unmarried in a spell year define the reference category for marital status. The fertility variables include first birth; subsequent birth; no births, but children younger than six present; and, for the women 20 to 24, the number of children older than six.[12] Women who have no children are the reference fertility group. The model includes also spell duration and its square.[13]

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[11]Experience is measured as years since schooling was completed for the 20 to 24 year olds and as years since age 18 for the 15 to 19 year olds.

[12]For the 15 to 19 year olds, there was so little variation in the number of children older than 6 that the multiple spell models were not estimable when they included that variable.

[13]Missing survey years ruled out including the unemployment rate in the local labor market as an additional explanatory variable.

Table 17

VARIABLE DEFINITIONS FOR WORK AND NON-WORK SPELL MODEL

Dependent Variables

Work spells:	Consecutive years in which respondent worked at least six months
Non-work spells:	Consecutive years in which respondent did not work at least six months

Explanatory Variables

Fixed at beginning of spell:

EXPERIENCE equals cumulative years of work experience
AGE
GRADE highest level of schooling completed

Time-varying:

ENROLLED equals one if enrolled in school during spell year
SOUTH equals one if residing in Southern state
CITY CENTER equals one if in SMSA central city
MAR TO NOT MAR equals one if marital dissolution occurs during spell year
NOT MAR TO MAR equals one if respondent marries during spell year
MAR TO MAR equals on if respondent remains married during spell year
BIRTH:NO KIDS equals one if respondent has a first birth during a spell year
BIRTH:KIDS equals one if respondent has a second or higher order birth during a spell year
NO BIRTH:KIDS LT6 equals one if respondent has children under age six, but no births during a spell year
ALL KIDS GT6 equals the number of children older than six if all children are over 6 in a spell year
SCHOOL CHILD equals one if youngest child reaches age 6 in a spell year

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3. Empirical Analysis

Given that labor force behavior may differ by race, models are estimated separately for non-black and black women.[14] Table 18 describes the dependent variables by including the number and mean duration of censored and completed work and non-work spells. Comparing the 15 to 19 year olds, the most striking difference in spell characteristics is that the mean duration of censored work spells increases by about one year, rising from 3.9 to 4.9 years (of a potential eight) for non-black women and from 3.3 to 4.1 years for black women. For 15 to 19 year olds, the length of completed work spells is also higher by one-half year for the more recent group. Censored non-work spells have lengthened for the more recent group of women, with mean duration rising about 6 months, except for Non-black 20 to 24 year olds, for whom they have shortened. The 20 to 24 year olds experience longer censored work spells than does the younger age group, and these spell lengths also increased among the more recent cohort.

Tables 19 and 20 provide somewhat more detail regarding the distribution of spells by their duration, first for censored, then for completed spells. Turning to Table 19, the proportion of all censored work spells that last the entire eight-year period has increased for all age and race groups. For 15 to 19 year old non-black women, this proportion more than doubles from 9.8 percent to 24.0 percent. The proportion of censored non-work spells that are of eight-years duration also increases modestly over time for each age and

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[14]To adjust for the oversampling of Hispanics in the NLS-Y, we drew a random sample of all Hispanic women such that our sample proportion corresponds with the age and sex specific population proportion as reported in the 1980 Census.

Table 18

Mean Duration and Number of Censored and Completed Spells, by Age Cohort, Race, and Time Period

Age and Race	Work Spells				Non-Work Spells			
	Censored		Completed		Censored		Completed	
	1968-75	1979-86	1968-75	1979-86	1968-75	1979-86	1968-75	1979-86
15-19 to 23-27								
Non-Black	3.89	4.94	1.81	2.29	3.58	4.18	1.99	2.14
	591	1582	636	1273	357	696	886	1866
Black	3.27	4.08	1.42	1.92	4.44	5.15	2.23	2.60
	230	563	251	480	165	356	389	823
	1968-75	1973-80	1968-75	1973-80	1968-75	1973-80	1968-75	1973-80
20-24 to 28-32								
Non-Black	4.85	5.35	2.16	2.25	4.72	4.37	2.02	1.86
	676	569	846	634	493	329	900	611
Black	4.41	5.04	1.90	1.87	4.54	4.95	2.10	1.99
	244	254	301	245	147	121	362	288

Source: NLS Surveys of Mature Women, Young Women, and Youth.

Table 19

Number and Proportion of Censored Work and Non-Work Spells, by Spell Length

	WORK SPELLS								NON-WORK SPELLS							
	15-19 TO 23-27				20-24 TO 28-32				15-19 TO 23-27				20-24 TO 28-32			
	Non-Black		Black		Non-Black		Black		Non-Black		Black		Non-Black		Black	
	1968-75	1979-86	1968-75	1979-86	1968-75	1973-80	1968-75	1973-80	1968-75	1979-86	1968-75	1979-86	1968-75	1973-80	1968-75	1973-80
1 Year	110	177	72	103	126	75	52	33	109	186	43	59	95	53	43	22
	0.186	0.112	0.313	0.183	0.186	0.132	0.213	0.130	0.305	0.267	0.261	0.166	0.193	0.161	0.293	0.182
2 Years	39	180	13	87	28	49	11	25	48	83	12	32	57	58	14	8
	0.066	0.114	0.057	0.155	0.041	0.086	0.045	0.098	0.134	0.119	0.073	0.090	0.116	0.176	0.095	0.066
3 Years	114	173	54	85	86	56	44	27	34	67	9	37	35	36	10	12
	0.193	0.109	0.235	0.151	0.127	0.098	0.180	0.106	0.095	0.096	0.055	0.104	0.071	0.109	0.068	0.099
4 Years	106	170	25	59	70	37	24	25	27	52	9	18	42	35	8	14
	0.179	0.107	0.109	0.105	0.104	0.065	0.098	0.098	0.076	0.075	0.055	0.051	0.085	0.106	0.054	0.116
5 Years	76	167	26	58	82	60	18	27	38	49	14	17	49	32	3	13
	0.129	0.105	0.113	0.103	0.121	0.105	0.074	0.106	0.106	0.070	0.085	0.048	0.099	0.097	0.020	0.107
6 Years	55	153	18	40	40	28	28	22	14	41	7	12	40	17	11	3
	0.093	0.097	0.078	0.071	0.059	0.049	0.115	0.087	0.039	0.059	0.042	0.034	0.081	0.052	0.075	0.025
7 Years	33	185	13	51	46	26	20	11	13	29	7	9	38	25	11	6
	0.056	0.117	0.057	0.091	0.068	0.046	0.082	0.043	0.036	0.042	0.042	0.025	0.077	0.076	0.075	0.050
8 Years	58	380	9	80	198	238	47	84	74	179	67	162	137	73	47	43
	0.098	0.240	0.039	0.142	0.293	0.418	0.193	0.331	0.207	0.257	0.406	0.455	0.278	0.222	0.320	0.355
Total Number of Spells	591	1585	230	563	676	569	244	254	357	696	165	356	493	329	147	121

Source: NLS Surveys of Mature Women, Young Women, and Youth.

Table 20

Number and Proportion of Completed Work and Non-Work Spells, by Spell Length

	WORK SPELLS								NON-WORK SPELLS							
	15-19 TO 23-27				20-24 TO 28-32				15-19 TO 23-27				20-24 TO 28-32			
	Non-Black		Black		Non-Black		Black		Non-Black		Black		Non-Black		Black	
	1968-75	1979-86	1968-75	1979-86	1968-75	1973-80	1968-75	1973-80	1968-75	1979-86	1968-75	1979-86	1968-75	1973-80	1968-75	1973-80
1 Year	411	550	190	240	399	323	172	156	447	883	186	337	487	399	194	178
	0.565	0.431	0.701	0.500	0.482	0.509	0.571	0.637	0.435	0.471	0.419	0.409	0.541	0.653	0.536	0.618
2 Years	146	306	50	138	193	90	50	29	221	451	75	150	171	69	69	33
	0.201	0.240	0.185	0.288	0.233	0.142	0.166	0.118	0.215	0.241	0.169	0.182	0.190	0.113	0.191	0.115
3 Years	72	167	17	49	105	87	45	24	151	235	55	116	95	52	30	34
	0.099	0.131	0.063	0.102	0.127	0.137	0.150	0.098	0.147	0.125	0.124	0.141	0.106	0.085	0.083	0.118
4 Years	54	131	8	25	62	63	16	22	95	129	43	66	75	49	24	12
	0.074	0.103	0.030	0.052	0.075	0.099	0.053	0.090	0.092	0.069	0.097	0.080	0.083	0.080	0.066	0.042
5 Years	24	63	5	14	50	29	8	5	82	82	60	67	42	17	29	12
	0.033	0.049	0.018	0.029	0.060	0.046	0.027	0.020	0.080	0.044	0.135	0.081	0.047	0.028	0.080	0.042
6 Years	17	42	1	9	28	30	8	4	26	65	15	52	17	12	13	13
	0.023	0.033	0.004	0.019	0.034	0.047	0.027	0.016	0.025	0.035	0.034	0.063	0.019	0.020	0.036	0.045
7 Years	4	33	0	5	9	12	2	5	6	28	10	35	13	13	3	6
	0.005	0.026	0.000	0.010	0.011	0.019	0.007	0.020	0.006	0.015	0.023	0.043	0.014	0.021	0.008	0.021
Total Number of Spells	728	1275	271	480	828	634	301	245	1028	1873	444	823	900	611	362	288

Source: NLS Surveys of Mature Women, Young Women, and Youth.

race group except the non-black 20 to 24 years olds (for whom the mean duration of such spells also declined).

Table 20 describes these distributions for completed work and non-work spells. The majority of completed spells last only one or two years. The proportion of completed work spells, that end within one year declines for the more recent cohort of 15 to 19 year olds, but rises slightly for the more recent group of 20 to 24 year olds.

Tables 21 and 22 present the estimates of the multiple spell hazard rate models for women ages 15 to 19 at the beginning of the sample period, for non-black and for black women, respectively.[15] The results reported here do not include corrections for unobserved heterogeneity. However, given the heterogeneity among women in measured characteristics for which we do control, we would anticipate no dramatic change in our estimates.[16]

Considering first the estimated risk of leaving a work spell, the effect of prior experience becomes negative and highly significant for the more recent cohort, having an insignificant (but positive) effect for the earlier cohort. Years of schooling increases the length of the work spell; its effect changes little for the more recent group. Being enrolled in school increases the likelihood of leaving a work spell. Southern residence is significantly associated with longer work duration among the more recent cohort of women.

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[15]We use a quadratic duration specification. Likelihood ratio tests indicated that we could reject both Weibull and Gompertz specifications in favor of the quadratic model.

[16]Early results based on a non-parametric mixture distribution with two support points indicated little change in any of the estimated parameters.

Table 21
Work and Non-Work Spell Hazard Rate Model,
Non-Black Women 15 to 19

	1968-75 (N=948)		1979-86 (N=2278)	
	Estimate	Standard Error	Estimate	Standard Error
Work to Non-Work Transition				
INTERCEPT	-8.3268	1.4674	-4.2873	0.5609
EXPERIENCE/100	8.4791	5.8769	-16.5922	4.9633
AGE/100	-0.0516	2.6851	3.9815	2.3382
GRADE/100	-15.3758	1.7290	-14.6974	2.0032
ENROLLED	0.3720	0.1062	0.3517	0.0751
SOUTH	0.0175	0.0921	-0.1145	0.0623
CITY CENTER	-0.0740	0.0985	-0.1153	0.0904
MAR TO NOT MAR	-0.9052	0.5032	0.2950	0.2104
NOT MAR TO MAR	0.2513	0.1538	0.1598	0.1232
MAR TO MAR	0.1568	0.1389	0.1959	0.0930
BIRTH:NO KIDS	0.3624	0.2458	0.7427	0.1514
BIRTH:KIDS	0.2834	0.4571	0.2513	0.2172
NO BIRTH:KIDS LT6	0.0555	0.1680	0.5071	0.0966
DURATION	0.7682	0.1543	0.5119	0.0718
DURATION^2	-0.3554	0.0538	-0.2019	0.0206
Non-Work to Work Transition				
INTERCEPT	-11.2336	1.3500	-5.2180	0.5313
EXPERIENCE/100	6.1230	4.2746	9.1165	3.5678
AGE/100	9.5546	3.0993	-2.9470	2.3064
GRADE/100	9.7537	2.5012	14.2659	1.8995
ENROLLED	-0.3902	0.0900	0.3409	0.0679
SOUTH	-0.0506	0.0712	-0.0253	0.0495
CITY CENTER	-0.0312	0.0757	-0.1067	0.0720
MAR TO NOT MAR	-1.9333	0.6141	-0.2234	0.2170
NOT MAR TO MAR	-0.5086	0.1366	-0.3170	0.1298
MAR TO MAR	-1.0006	0.1214	-0.2807	0.0788
BIRTH:NO KIDS	-0.5537	0.1828	-0.5056	0.1314
BIRTH:KIDS	-0.6542	0.3056	-0.1536	0.1334
NO BIRTH:KIDS LT6	-0.5827	0.1375	-0.5185	0.0782
DURATION	1.5103	0.1297	0.9241	0.0605
DURATION^2	-0.4699	0.0474	-0.2717	0.0184
NEGATIVE LOG LIKELIHOOD	-134.8135		510.4882	

Table 22
Work and Non-Work Spell Hazard Rate Model,
Black Women 15 to 19

	1968-75 (N=395)		1973-80 (N=929)	
	Estimate	Standard Error	Estimate	Standard Error
Work to Non-Work Transition				
INTERCEPT	-40.2922	4.1753	-7.5730	1.1368
EXPERIENCE/100	-1.9012	9.4739	-12.4535	7.4253
AGE/100	-1.8386	3.9983	3.5270	3.0831
GRADE/100	-9.9666	2.3804	-22.5093	2.6122
ENROLLED	0.2314	0.1861	0.2288	0.1180
SOUTH	-0.0822	0.1362	-0.2486	0.0934
CITY CENTER	-0.0360	0.1361	0.1086	0.0982
MAR TO NOT MAR	-0.1759	0.5318	-0.4685	0.4940
NOT MAR TO MAR	0.2840	0.2712	-0.0451	0.2486
MAR TO MAR	-0.2460	0.2143	-0.5832	0.2099
BIRTH:NO KIDS	0.4410	0.3127	0.2411	0.2591
BIRTH:KIDS	0.0807	0.3641	0.2203	0.3005
NO BIRTH:KIDS LT6	-0.1908	0.1682	0.2968	0.1177
DURATION	2.2082	0.3531	0.8635	0.1322
DURATION^2	-1.2719	0.1419	-0.3625	0.0407
Non-Work to Work Transition				
INTERCEPT	-10.1327	1.6148	-4.2102	0.6631
EXPERIENCE/100	2.9780	7.4784	10.0282	5.7408
AGE/100	16.2712	4.1344	-1.2155	3.5189
GRADE/100	9.8664	3.2069	28.1962	3.1888
ENROLLED	0.2737	0.1457	0.4745	0.0944
SOUTH	0.0879	0.1122	0.1712	0.0740
CITY CENTER	0.0045	0.1063	-0.1036	0.0808
MAR TO NOT MAR	-1.0006	0.5567	0.3123	0.3423
NOT MAR TO MAR	-0.0861	0.2272	0.1825	0.2123
MAR TO MAR	-0.2089	0.1571	-0.0009	0.1404
BIRTH:NO KIDS	-0.0690	0.2111	-0.2239	0.1695
BIRTH:KIDS	-0.8459	0.3065	-0.0520	0.1754
NO BIRTH:KIDS LT6	0.0062	0.1416	-0.5802	0.0909
DURATION	1.1128	0.1867	0.7181	0.0846
DURATION^2	-0.3365	0.0613	-0.1647	0.0228
NEGATIVE LOG LIKELIHOOD	-72.5013		242.7594	

Among the earlier cohort, only a marital dissolution for white women has a statistically significant effect, reducing the probability of exiting a work spell. Among the NLSY, only remaining married matters (statistically), with opposite effects by race. The relative effect of remaining married is to raise the likelihood of exiting a work spell for white women and increases the duration of a work spell for black women. Relative to a childless woman, one who gives birth to her first child during a work spell year is more likely to end the work spell. This effect changes little for white women, but weakens for black women. Bearing a second or higher order child while working has no statistically significant effect on leaving work, yet the presence children under age six increases the probability of ending a work spell. Finally, after roughly one month in a work spell, the effect of duration becomes negative. This supports our intuition that cumulative experience <u>within</u> a spell raises otherwise unmeasured returns to continued work participation and reduces the probability of leaving work. The most notable difference between the two time periods is that, for black women, there is a dramatic increase in the effect of schooling on the duration of their work spells.

Turning to the estimates for non-work spells, residing in the South exerts a statistically significant effect to reduce the length of a non-work spell only for the more recent group of black women, while SMSA is not significant. Being older at the beginning of a non-work spell significantly reduces non-work spells only for the earlier cohort. The risk of leaving a spell of non-work increases with experience and schooling. The strength and significance of these effects increases markedly as we compare across the two time periods, and this is especially true for black women.

The consequence of school enrollment appears to change over time for

white women. Among the earlier cohort of white women, school enrollment lengthens a non-work spell, while the opposite holds for the more recent group and for both groups of black women.

The impact of marital status on the non-work spells of white women appears diminished over time. Relative to remaining single, separating, getting married and staying married inhibit labor market entry for white women. But only among the earlier cohort of black women does marital status bear any significant effect on non-work spells; the effect of a martial dissolution weakly reduces the likelihood of ending a spell of non-work. For each group childbearing reduces the likelihood of leaving a non-work spell. Among white women, these effects decline somewhat in magnitude for the more recent cohort. For black women, a first or higher order birth during a non-work spell year has an insignificant effect on the likelihood of leaving the spell. The presence of children under 6 matters only for the NLSY cohort.

Tables 23 and 24 present the results for the 20 to 24 year olds, with both groups from the NLS Young Women. These data include eight-years of observations, with women being 28 to 32 in the last sample year. Comparing the two time periods (which are five years apart), the results for white women remain quite similar. The effect of a change in marital status becomes insignificant for the more recent group; this change holds true for the black women as well. Also, Southern residence reduces the duration of a non-work spell among the more recent group.

Among black women, the effect of experience to increase work spell length doubles for the more recent group and the effect of a first birth becomes insignificant. The effect of experience to reduce the length of non-

Table 23
Work and Non-Work Spell Hazard Rate Model,
Non-Black Women 20 to 24

	1968-75 (N=1169)		1973-80 (N=898)	
	Estimate	Standard Error	Estimate	Standard Error
Work to Non-Work Transition				
INTERCEPT	-5.0761	0.8059	-4.6136	0.7383
EXPERIENCE/100	1.4867	2.2240	-3.6704	3.7134
AGE/100	1.3657	2.1236	4.7135	2.1328
GRADE/100	-9.1898	2.0267	-6.6097	2.6660
ENROLLED	0.3206	0.1553	0.3883	0.1807
SOUTH	-0.1109	0.0783	-0.1037	0.0941
CITY CENTER	0.0016	0.0772	0.0560	0.0946
MAR TO NOT MAR	-0.5848	0.3500	-0.0196	0.2564
NOT MAR TO MAR	0.4510	0.1370	0.0835	0.1840
MAR TO MAR	0.1938	0.0986	0.2707	0.1236
BIRTH:NO KIDS	0.5058	0.1925	0.6653	0.1950
BIRTH:KIDS	0.1874	0.2169	0.1449	0.2763
NO BIRTH:KIDS LT6	0.0861	0.1011	0.1767	0.1180
ALL KIDS GT6	-0.5954	0.2937	-0.5478	0.2777
DURATION	0.6067	0.1016	0.3916	0.1123
DURATION^2	-0.2384	0.0302	-0.1659	0.0321
Non-Work to Work Transition				
INTERCEPT	-9.3619	0.7644	-5.4088	0.8066
EXPERIENCE/100	4.4442	1.7529	2.4494	3.0362
AGE/100	9.3705	1.8850	1.4885	2.0226
GRADE/100	10.1085	1.7183	7.3322	1.9973
ENROLLED	0.0168	0.1363	-0.0417	0.2008
SOUTH	0.0651	0.0686	0.2705	0.0826
CITY CENTER	-0.0441	0.0713	-0.0315	0.0969
MAR TO NOT MAR	-0.3720	0.3137	-0.4660	0.2598
NOT MAR TO MAR	-0.5492	0.1747	-0.3492	0.2106
MAR TO MAR	-0.9068	0.1066	-0.9010	0.1224
BIRTH:NO KIDS	-0.5725	0.1464	-0.9995	0.2065
BIRTH:KIDS	-0.3349	0.1508	-0.2108	0.1705
NO BIRTH:KIDS LT6	-0.5124	0.0964	-0.8198	0.1057
ALL KIDS GT6	-0.7700	0.3295	-0.6486	0.2371
DURATION	1.0734	0.0974	0.8917	0.1138
DURATION^2	-0.3443	0.0292	-0.2835	0.0338
NEGATIVE LOG LIKELIHOOD	294.8949		266.2973	

Table 24
Work and Non-Work Spell Hazard Rate Model,
Black Women 20 to 24

	1968-75 (N=391)		1973-80 (N=375)	
	Estimate	Standard Error	Estimate	Standard Error
Work to Non-Work Transition				
INTERCEPT	-7.9106	1.6290	-5.9315	1.3226
EXPERIENCE/100	-6.6746	3.5059	-12.3340	6.8219
AGE/100	6.9445	3.1014	4.1276	2.6850
GRADE/100	-12.2650	2.6985	-10.6435	2.8484
ENROLLED	0.3792	0.2859	-0.2963	0.3493
SOUTH	-0.2028	0.1429	0.0364	0.1415
CITY CENTER	-0.1898	0.1268	0.0927	0.1475
MAR TO NOT MAR	-1.1458	0.5352	0.0638	0.3383
NOT MAR TO MAR	-0.5909	0.3291	0.3032	0.2574
MAR TO MAR	-0.1743	0.1468	-0.3384	0.1962
BIRTH:NO KIDS	0.6581	0.2910	0.1473	0.4158
BIRTH:KIDS	0.3560	0.2563	0.2252	0.3041
NO BIRTH:KIDS LT6	-0.1120	0.1707	0.0114	0.1614
ALL KIDS GT6	-0.3061	0.2941	-0.3501	0.3086
DURATION	0.8009	0.1863	0.3858	0.1853
DURATION^2	-0.3238	0.0580	-0.2102	0.0547
Non-Work to Work Transition				
INTERCEPT	-8.3383	1.3457	-4.7726	1.1288
EXPERIENCE/100	13.7438	2.5975	5.0175	4.9211
AGE/100	9.1704	3.0380	0.7193	2.9236
GRADE/100	17.7011	2.7068	16.1815	3.8195
ENROLLED	0.0182	0.2335	0.2849	0.2932
SOUTH	0.4146	0.1298	0.3182	0.1317
CITY CENTER	-0.1843	0.1176	-0.1218	0.1356
MAR TO NOT MAR	-0.8821	0.4167	-0.3746	0.3294
NOT MAR TO MAR	0.1095	0.2352	-0.1311	0.2886
MAR TO MAR	-0.3702	0.1381	-0.2681	0.1547
BIRTH:NO KIDS	-0.1886	0.2710	-0.0238	0.3377
BIRTH:KIDS	-0.1872	0.2061	-0.6477	0.2805
NO BIRTH:KIDS LT6	-0.4291	0.1566	-0.2914	0.1436
ALL KIDS GT6	-0.6170	0.3347	-0.7222	0.2840
DURATION	0.9538	0.1548	0.5663	0.1652
DURATION^2	-0.2758	0.0470	-0.1831	0.0476
NEGATIVE LOG LIKELIHOOD	-10.9549		85.5035	

work spells declines in magnitude and becomes insignificant. The effect of a second or higher order birth significantly deters labor market entry among the more recent group of black women.

What do these results inform us about intercohort differences in labor force transitions? Considering the dependent variable alone, the length of censored work spells has risen nearly one year (of a potential eight) for both white and black women. The human capital variables, in particular the level of labor market experience and schooling both increase the duration of work spells and hasten exits from a non-work spell. These effects appear stronger for the more recent group of 15 to 19 year old women, especially, black women. Yet the intercohort differences in responses to demographic variables appear mixed. Relative to being single, all marital states generally deter exits from non-work spells; and these effects are weaker among the more recent cohorts of women. Yet, the labor supply effects of childbearing appear not to have changed dramatically over time.[17]

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[17]One topic that remains for the future is the potential endogeneity of some explanatory variables (measures of fertility in particular). A recent paper by Olsen and Farkas (1989) outlines one methodological approach to treating endogenous variables within a hazard rate model.

IV. DETERMINANTS OF THE PROPORTION OF YEARS WORKED OVER THE LIFETIME

In this section we summarize the results of an analysis of the proportion of years worked since leaving school, or since age 18 for the two youngest cohorts. The perspective here differs from that of the duration model described in the preceding chapter in that we seek to examine the relationship between lifetime work experience and lifetime fertility history, marriage patterns, education and other factors. This approach does not incorporate time-dependent variables; and rather than using annual data, employs data which summarize past behavior. Consequently, the data requirements are less stringent than for the duration model and we can perform this analysis for all of the cohorts including the mature women.

A. Empirical Results

We estimate for all cohorts regression models of the determinants of the proportion of the lifetime worked for a given age group, a:

$$P_t^a = \beta_t^a X_t^a + u_t^a ,$$

where t indicates the survey year. Parameters are allowed to vary over time within an age group and across age groups. We focus on a few key variables which are known to be strongly associated with women's labor force participation. They are as follows:

Years of school completed (measured as of the year the cohort reached the stated ages). Since schooling is positively correlated with the expected wage it is likely to be positively associated with cumulative work participation (Mincer, 1962). The strength of the effect may vary over time and between cohorts due to changes in the return to education (and, hence, in the extent to which wages rise with schooling) and to offsetting income

Marital status is measured by a dichotomous variable which equals one if the woman had never married as of the stated year. In the past a career in the labor market often precluded marriage; consequently women who sought careers were less likely to marry (Goldin, 1990). It has become much more commonplace for married women to work and we expect that the relation between lifetime participation and marital status would weaken from one cohort to the next. Contributing to this effect is the increase over time in the proportion of never-married women who have borne children, a development which has narrowed the difference in home responsibilities by marital status. In fact the availability of welfare to non-married women with children creates particular work disincentives for this group.

Differences in fertility are captured by a series of dichotomous measures of numbers of children ever born -- none, one, two, or three -- each of which is relative to the omitted group of four or more children.

Control variables for age and southern residence in the stated year are also included. Southern states have lower wage rates and this relative wage difference (and substitution effect) would likely reduce labor force participation in the South. However, husbands incomes are also lower in the South, and this would be a factor pulling in the opposite direction -- that is, increasing married women's participation. Moreover, welfare payments are substantially lower in the South thereby encouraging relatively higher work participation among non-married women in the South compared to the North, particularly those with low potential earnings.

Complete regression results for the determinants of the proportion of years since leaving school (or since age 18) in which a woman worked at least six months are presented in Appendix A. Table 25 summarizes the effects of

Table 25
Effects of Schooling and Marital Status on the Proportion of Years Worked Since Leaving School, by Age and Year

	White Women				Black Women			
	1967 1968	1972 1973	1977 1978	1982 1983	1967 1968	1972 1973	1977 1978	1982 1983
Schooling								
25-29		0.0006	0.0295			0.0244	0.031	
30-34	0.0148		0.0212	0.0111	-0.0007		0.0496	0.0317
35-39	0.0061	0.0153		0.0217	0.0091	0.0121		0.0503
40-44	0.0083	0.0087	0.0162		0.0044	0.0168	0.0177	
45-49		0.0112	0.0096	0.0204		0.131	0.0186	0.0203
50-54			0.0182	0.0124			0.0167	0.022
Never Married								
25-29		0.0472	0.0049			-0.0386	-0.0617	
30-34	0.1171		0.0499	-0.0178	0.0438		-0.0504	-0.0493
35-39	0.171	0.1383		0.0837	0.0463	-0.0081		-0.0428
40-44	0.1799	0.1499	0.1385		0.0926	-0.0068	-0.0188	
45-49		0.2068	0.1578	0.1346		0.1247	0.0481	-0.0026
50-54			0.2213	0.1745			0.0835	0.1636

schooling and marital status on the proportion of years worked, utilizing the coefficients drawn from the full set of regressions. The table enables a comparison of effects for different cohorts reaching a given age range in different years and the results are shown separately by race. For example, it shows the effect of schooling on lifetime participation for cohorts reaching ages 35 to 39 in 1967, 1972, and 1983. For white women in the 35-39 age group in 1967 a one-year increase in schooling was associated with a nonsignificant increase of 0.0061 in the proportion of years worked; but in 1983 the effect was 0.0217 and it was statistically significant.

In general, an increase in schooling is associated with an increase in the proportion of years spent working. The strength of this effect increases over time, particularly in the late 1970s and early 1980s and it is somewhat stronger for blacks. The increase over time occurs within a given age group (across cohorts) and within a given cohort as it ages. The within-cohort effect can be seen by reading down the diagonal -- for example, the cohort ages 35 to 39 in 1967 was 40 to 44 in 1972, 45 to 49 in 1977 and 50 to 54 in 1982. The change over time seems then to be more strongly related to temporal rather than cohort effects. The increase in the return to schooling in the 1980s provides a possible explanation of the pattern.

The effect of martial status on the proportion of years worked differs by cohort and by race. In general, the relation between remaining single and lifetime work participation is positive initially but becomes considerably weaker from cohort to cohort. Among white women in the oldest cohort examined -- those ages 40 to 44 in 1967 -- the proportion of years worked is about one-fifth higher among never married women compared to married women. This pronounced effect is sharply reduced, however, and becomes insignificant among

the youngest cohort of white women.

Among black women marital status bears no statistically significant relationship to lifetime work experience, although the effect of never marrying is generally weakly positive among the oldest cohort and weakly negative more recently. However, for 25 to 29 year-old black women, having never married reduces participation and is statistically significant in 1978 and 1987 (Appendix A). The increased tendency for single women to become mothers has been particularly strong among black woman and this factor likely helps explain the observed pattern.

The set of regression results reported in Appendix A shows that bearing children diminishes lifetime participation and the greater the number of children born the lower the proportion of years worked. The negative effect of fertility on lifetime participation is stronger among white women than among black women. Among both races, once women reach their late forties and fifties when children are likely to be of school age (or older) the effect diminishes somewhat, suggesting that there is an intensification of labor force participation after fertility is completed.

Tables 26 and 27 summarize by cohort for white and black women respectively, the estimated effects of fertility on the proportion of years worked. These effects are calculated from the Tables in Appendix A by taking the difference between the effects of, for example, bearing one child relative to having borne no children. Overall, the most consistent pattern for white women is that the negative effect of increasing parity from three to four or more children strengthens considerably during this period. Relative to white women, childbearing generally has weaker effects on the lifetime work participation of black women, especially when considering the effect of the

Table 26

Estimated Effects of Relative Numbers of Children on Proportion of Years Work
(Nonblack Women)

Age	Since Leaving School				Since Age 18	
	1967 1968	1972 1973	1977 1978 1979	1982 1983 1984	1978	1987
25-29						
0 to 1		-0.0951	-0.1496		-0.1123	-0.1340
1 to 2		-0.1625	-0.1846		-0.1689	-0.1579
2 to 3		-0.0948	-0.0564		-0.1091	-0.1480
3 to 4+		-0.0024	-0.1384		-0.1173	-0.1203
30-34						
0 to 1	-0.1145		-0.1506	-0.0827		
1 to 2	-0.1602		-0.1482	-0.1512		
2 to 3	-0.0938		-0.0908	-0.1266		
3 to 4+	-0.0863		-0.0611	-0.1115		
35-39						
0 to 1	-0.1210	-0.0796		-0.1174		
1 to 2	-0.1587	-0.1478		-0.0963		
2 to 3	-0.0514	-0.1185		-0.0722		
3 to 4+	-0.0624	-0.0727		-0.1167		
40-44						
0 to 1	-0.1427	-0.1717	-0.0727			
1 to 2	-0.0738	-0.0960	-0.1422			
2 to 3	-0.0690	-0.0573	-0.0972			
3 to 4+	-0.0434	-0.0622	-0.0777			
45-49						
0 to 1		-0.0953	-0.1703	-0.0423		
1 to 2		-0.0787	-0.0795	-0.1145		
2 to 3		-0.0564	-0.0528	-0.0921		
3 to 4+		-0.0522	-0.0543	-0.0942		
50-54						
0 to 1			-0.0869	-0.1331		
1 to 2			-0.0660	-0.0807		
2 to 3			-0.0453	-0.0430		
3 to 4+			-0.0520	-0.0336		

[a]Differences between regression coefficients, from Tables 25-30.

Table 27

Estimated Effects of Relative Numbers of Children on Proportion of Years Work (Black Women)

	Since Leaving School				Since Age 18	
Age	1967 1968	1972 1973	1977 1978 1979	1982 1983 1984	1978	1987
25-29						
0 to 1		0.0202	-0.1278		-0.0638	-0.0770
1 to 2		-0.0424	-0.1477		-0.1113	-0.0879
2 to 3		-0.1244	-0.0861		-0.0707	-0.1142
3 to 4+		-0.0511	-0.0661		-0.1409	-0.0505
30-34						
0 to 1	0.0480	-0.1034		-0.0331		
1 to 2	-0.1297	-0.0094		-0.0668		
2 to 3	-0.1042	-0.1406		-0.1340		
3 to 4+	-0.0902	-0.0595		-0.0444		
35-39						
0 to 1	-0.0451	-0.0145		-0.0883		
1 to 2	-0.0369	-0.0502		0.0157		
2 to 3	-0.1389	-0.0381		-0.0948		
3 to 4+	-0.0467	-0.1476		-0.0953		
40-44						
0 to 1	-0.0567	-0.0281	-0.0831			
1 to 2	-0.0867	-0.0677	-0.0200			
2 to 3	-0.0664	-0.0929	-0.0270			
3 to 4+	-0.0162	-0.0806	-0.1895			
45-49						
0 to 1		-0.0581	-0.0982	-0.1167		
1 to 2		-0.0423	-0.0417	0.0583		
2 to 3		-0.0875	-0.0870	-0.0201		
3 to 4+		-0.0195	-0.1021	-0.1854		
50-54						
0 to 1			-0.0466	-0.0749		
1 to 2			-0.0288	-0.0541		
2 to 3			-0.1055	-0.0442		
3 to 4+			-0.0321	-0.1360		

*Differences between regression coefficients, from Tables 25-30.

first (and sometimes the second) child. Yet the negative effect on participation of the first child borne by black women has increased over time.

Finally, we note that the effect of southern residence on lifetime participation differs considerably between black and white women. Among white women the effect is typically negligible and not statistically significant. Among black women, however, those who live in the South typically have worked a larger proportion of years and the effect is statistically significant. Since relative wages in the South versus the North are lower among blacks than among whites the relatively higher labor force participation of black women in the South must be attributable to offsetting income effects. As noted, lower husbands incomes and lower welfare benefits in the South would produce less of a disincentive than in the North. The greater extent of marital dissolution and reliance on welfare among black women is consistent with their greater exposure to the effects of differences in potential welfare benefits.

B. Accounting for the Increase in Lifetime Participation

A natural question to ask is the extent to which changes in the number of children borne, in schooling, in marital status and in the other factors examined can explain the upward trend in lifetime work experience. We first address this question in Table 28 which summarizes these results by decomposing the intercohort changes in predicted lifetime participation into components measuring the effect of changes due to differences in the mean values of the independent variables and changes due to variations in the estimated structure of the participation model (suppressing the age group superscript):

$$P_t = B_t X_t + u_t , \qquad \text{for the earliest year,}$$

$P_{t+1} = B_{t+1} X_{t+1} + u_{t+1}$, for the latest year, then at the sample means:

$$P_{t+1} - P_t = B_t (X_{t+1} - X_t) + (B_{t+1} - B_t) X_t + (B_{t+1} - B_t) (X_{t+1} - X_t)$$

The first term represents the changes due to changes in the sample means, the second term corresponds to variations in the parameters and the final term represents the interaction. The results are presented first regarding all variables and second focussing on the changes in fertility (and fertility coefficients) alone.

The increases in participation have been most dramatic among white women younger than 40 and among these groups, much of the overall change appears due to changes in the average levels of the independent variables, with much of effect of changes in the means resulting from starkly lower fertility rates. Among younger black women, changes in the estimated coefficients and implied structure of the participation model actually suggest absolute reductions in participation, although lower fertility (and concomitant increases in participation) offset somewhat these reductions.

To focus on cohort differences in lifetime participation, we pool over time women within the same five-year age group and reestimate the regression models. Tables 29 and 30 display these results. These models constrain the effects of the independent variables to be equal within a five-year age group across time periods. For each age group, the earliest cohort is taken as the reference group. Among white women, with one exception, each of the cohort effects is positive, with cohort dummies implying a five to 15 percent higher

Table 28

Decomposition of Changes in Lifetime Participation

Age Group	Overall Change	Due to Means[a]	Due to Coefficients[b]	Interaction[c]
25 to 29: 1973-78				
Nonblack Total	0.1143	0.0347	0.0596	0.0200
Fertility[d]		0.0352	0.0711	0.0080
Black Total	0.1134	0.0425	0.0481	0.0228
Fertility		0.0226	0.0837	0.0071
30 to 34: 1967-83				
Nonblack Total	0.1559	0.1392	0.0189	-0.0022
Fertility		0.1116	0.0338	0.0105
Black Total	0.0472	0.0908	-0.0810	0.0374
Fertility		0.0876	-0.0268	-0.0136
35 to 39: 1967-83				
Nonblack Total	0.1165	0.0600	0.0218	0.0347
Fertility		0.0468	0.0603	0.0094
Black Total	0.0375	0.0547	-0.0962	0.0790
Fertility		0.0446	-0.0095	0.0024
40 to 44: 1967-77				
Nonblack Total	0.0462	0.0013	0.0408	0.0041
Fertility		-0.0063	0.0566	-0.0041
Black Total	-0.0406	-0.0334	-0.0074	0.0002
Fertility		-0.0125	0.0109	-0.0390
45 to 49: 1972-82				
Nonblack Total	0.0586	0.0050	0.0482	0.0054
Fertility		-0.0084	0.0706	-0.0036
Black Total	0.0013	-0.0133	0.0143	0.0003
Fertility		-0.0269	0.0261	0.0021
50 to 54: 1977-82				
Nonblack Total	0.0272	0.0062	0.0250	-0.0040
Fertility		-0.0047	0.0334	-0.0015
Black Total	-0.0008	-0.0195	0.0323	-0.0136
Fertility		-0.0266	0.0375	-0.0117

[a] $\beta_t (X_{t+1} - X_t)$

[b] $(\beta_{t+1} - \beta_t) X_t$

[c] $(\beta_{t+1} - \beta_t) (X_{t+1} - X_t)$

[d] Fertility results assume means and ocefficients remain constant for all variables except numbers of children.

Table 29

Determinants of Proportion of Years Worked Since Leaving School

NON BLACK WOMEN

VARIABLE	Ages 25 to 29 PARAMETER ESTIMATE	T-STAT	Ages 30 to 34 PARAMETER ESTIMATE	T-STAT	Ages 35 to 39 PARAMETER ESTIMATE	T-STAT	Ages 40 to 44 PARAMETER ESTIMATE	T-STAT	Ages 45 to 49 PARAMETER ESTIMATE	T-STAT	Ages 50 to 54 PARAMETER ESTIMATE	T-STAT
INTERCEPT	0.0183	0.1430	-0.0042	-0.0350	0.2190	1.4980	0.2038	1.2040	0.1418	0.7180	0.3918	1.4250
AGE	0.0030	0.6770	0.0039	1.0770	-0.0021	-0.5380	0.0000	0.0110	0.0010	0.2540	-0.0036	-0.6840
SCHOOLING	0.0156	5.3690	0.0158	7.5190	0.0144	6.3200	0.0105	4.4720	0.0131	5.3810	0.0156	5.1410
SOUTH	-0.0117	-0.8870	-0.0077	-0.7240	0.0069	0.5910	0.0101	0.8180	0.0165	1.2810	0.0192	1.1870
NEVER MARRIED	0.0285	1.4390	0.0333	1.5920	0.1221	4.1940	0.1629	4.7520	0.1750	4.7160	0.2037	4.1180
NO CHILDREN	0.3964	11.8040	0.4595	22.2370	0.4048	17.9590	0.3640	16.0350	0.3232	13.4940	0.2664	9.0940
ONE CHILD	0.2681	8.1850	0.3455	17.5730	0.2897	14.3040	0.2275	10.9830	0.2141	10.0430	0.1596	6.0570
TWO CHILDREN	0.0990	3.0150	0.1905	11.1190	0.1648	10.7530	0.1325	8.8710	0.1295	8.2640	0.0870	4.4500
THREE CHILDREN	0.0223	0.6160	0.0845	4.6480	0.0815	5.1670	0.0605	3.9680	0.0658	4.1250	0.0430	2.1270
COHORT1	-	-	-	-	-	-	*		*		*	
COHORT2	-	-	-	-	*	*	0.0176	1.3130	0.0253	1.8360	0.0232	1.5570
COHORT3	-	-	*	*	0.0170	1.2330	0.0462	3.3180	0.0534	3.6250	-	-
COHORT4	*	*	-0.0088	-0.6770	0.0367	2.7330	-	-	-	-	-	-
COHORT5	0.0879	7.1280	0.0168	1.2300	-	-	-	-	-	-	-	-
Adjusted R-Square	0.2640		0.3119		0.2704		0.2152		0.1983		0.1535	
Sample Size	2446		2877		2408		2196		1972		1278	
Dependent Mean	0.5914		0.5526		0.4981		0.4635		0.4832		0.4900	

BLACK WOMEN

VARIABLE	Ages 25 to 29 PARAMETER ESTIMATE	T-STAT	Ages 30 to 34 PARAMETER ESTIMATE	T-STAT	Ages 35 to 39 PARAMETER ESTIMATE	T-STAT	Ages 40 to 44 PARAMETER ESTIMATE	T-STAT	Ages 45 to 49 PARAMETER ESTIMATE	T-STAT	Ages 50 to 54 PARAMETER ESTIMATE	T-STAT
INTERCEPT	-0.7791	-3.3160	-0.1773	-0.7800	0.1477	0.5000	0.7404	2.2440	0.6962	1.8650	0.8262	1.6610
AGE	0.0274	3.2920	0.0087	1.2620	0.0005	0.0620	-0.0101	-1.3130	-0.0098	-1.2610	-0.0117	-1.2470
SCHOOLING	0.0289	6.2750	0.0292	8.0560	0.0229	5.7560	0.0105	2.8550	0.0167	4.4500	0.0188	4.5160
SOUTH	0.0308	1.3440	0.0570	2.8970	0.0985	4.3100	0.1208	5.2620	0.1296	5.5430	0.1125	3.9090
NEVER MARRIED	-0.0594	-2.2550	-0.0412	-1.6180	-0.0449	-1.2180	0.0272	0.5860	0.0456	0.9290	0.0917	1.2360
NO CHILDREN	0.3135	7.2950	0.3089	8.3330	0.2939	6.7520	0.2633	6.6860	0.2529	6.6270	0.2481	5.6770
ONE CHILD	0.2514	6.5100	0.2537	8.3210	0.2116	5.4520	0.2106	5.7950	0.1850	5.0320	0.1941	4.5940
TWO CHILDREN	0.1453	3.8550	0.2057	7.5210	0.1843	5.0390	0.1552	4.7850	0.1654	4.9540	0.1614	4.0090
THREE CHILDREN	0.0459	1.1540	0.0668	2.3670	0.1044	3.3380	0.0896	2.5260	0.0936	2.6600	0.0843	1.9470
COHORT1	-	-	-	-	-	-	*		*		*	
COHORT2	-	-	-	-	*	*	-0.0188	-0.7500	0.0040	0.1610	0.0230	0.8740
COHORT3	-	-	*	*	-0.0115	-0.4290	-0.0106	-0.3830	0.0194	0.6920	-	-
COHORT4	*	*	-0.0697	-2.7780	-0.0437	-1.6340	-	-	-	-	-	-
COHORT5	0.0608	2.6550	-0.0857	-3.3580	-	-	-	-	-	-	-	-
Adjusted R-Square	0.1919		0.2115		0.1678		0.1351		0.1636		0.1722	
Sample Size	888		1010		789		760		666		445	
Dependent Mean	0.5055		0.5447		0.5433		0.5773		0.5805		0.5855	

there remains a strong, statistically significant effect of the passage of time. Even with identical characteristics, women from more recent cohorts are spending a higher proportion of their time at work in the market.

Table 30

Determinants of Proportion of Years Worked Since Age 18

NON BLACK WOMEN

	AGES 25 to 29	
VARIABLE	PARAMETER ESTIMATE	T-STAT
INTERCEPT	-0.0347	-3.3880
AGE	0.0158	4.4460
SCHOOLING	0.0079	3.3220
SOUTH	-0.0240	-2.3040
NEVER MARRIED	-0.0576	-4.4760
NO CHILDREN	0.5490	16.4280
ONE CHILD	0.4215	12.7250
TWO CHILDREN	0.2596	7.8440
THREE CHILDREN	0.1284	3.5540
COHORT5	*	*
COHORT6	0.0723	7.1580
Adjusted R-Square	0.2563	
Sample Size	3004	
Dependent Mean	0.6118	

BLACK WOMEN

	AGES 25 to 29	
VARIABLE	PARAMETER ESTIMATE	T-STAT
INTERCEPT	-0.0716	-3.8490
AGE	0.0222	3.3890
SCHOOLING	0.0307	7.7180
SOUTH	0.0506	2.9070
NEVER MARRIED	-0.0725	-4.0000
NO CHILDREN	0.3617	9.2700
ONE CHILD	0.2802	7.5480
TWO CHILDREN	0.1831	4.9020
THREE CHILDREN	0.0855	2.1110
COHORT5	*	*
COHORT6	0.0002	0.0130
Adjusted R-Square	0.2167	
Sample Size	1110	
Dependent Mean	0.4932	

V. IS THE FEMALE EXPERIENCE-WAGE PROFILE GROWING STEEPER?

This report has examined intercohort changes in cumulated years of work experience among women. We have found that the quantity of work experience has increased from cohort to cohort. Here we inquire whether the quality of women's work experience has increased. We do this by estimating the relation between wages and years of work experience. If women were investing more in work skills either on-the-job or in school (e.g. by taking more courses in subjects with a stronger market pay-off) then we would expect to see an increase in the effect of experience on wages from one cohort of women to the next.

To investigate the intercohort change in the relation between years of work experience and earnings we have estimated a series of log wage equations, by cohort, for both white and black women. The full set of equations is displayed in Appendix B, Tables B-1 through B-6 where each table presents the results for specific cohort/race groups at the point of reaching a given age. We first summarize the results of these cohort specific regressions and then describe the results of regressions using data pooling the different cohorts.

A. Cohort/Age/Race Specific Regressions

In the regressions shown in Appendix B experience is defined as years worked six months or more since completing school. An alternative specification also includes the number of years in the past five during which the respondent was not working. This variable is included for all cohorts and survey years except for 1967, for which it could not be measured. Additional explanatory variables include age, years of schooling, southern residence, SMSA residence, and three dummy variables measuring fertility: no children, one child, and two children, each measuring effects relative to three or more

children ever born. In brief our results are as follows.

Among white women, years of work experience generally have statistically significant and positive effects. In instances where years of experience is not significant the model specification typically includes years not working during the past five, a variable that is becomes highly collinear with total experience at younger ages. The effect of work experience is less consistent among black women.

The estimated effect of schooling is generally statistically significant and positive for all women. Southern residence dampens wages, particularly among black women. However, this effect is small and often insignificant for white women. SMSA residents receive significantly higher earnings.

Not surprisingly, the effects of children on wages are quite variable and are often not statistically significant. The main effect of children appears to operate through effects on years of work experience. As shown in Section IV, the number of children ever born is an important correlate of lifetime work experience. Once work experience is held constant, the expected effect of children on wages is ambivalent. Women with children may seek situations with flexible hours and other amenities compatible with their child care responsibilities and to the extent there are employer costs associated with providing these amenities, wages would be commensurately lower. However, women who work despite the presence of children may well be positively selected, or they may work harder because they contribute to their family's support and these factors would lead to a positive relationship between children and wages.

The coefficient on years of experience can be compared across cohorts and within an age group as done in Table 31 utilizing the results of

Table 31

Estimated Wage Effects of Years of Experience

	Experience Since Leaving School				Since Age 18	
Age	1967 1968	1972 1973	1977 1978	1982 1983	1978	1987
Black						
25-29		0.0082 1.026	0.0165 1.918		0.0202 2.019	0.0522 6.041
30-34	0.0005 0.074		0.0138 2.049	0.0351 5.058		
35-39	0.0025 0.533	-0.0033 -0.451		0.0352 5.844		
40-44	0.0151 3.188	0.0007 0.151	-0.0142 -2.159			
45-49		0.0048 0.975	0.0016 0.346	-0.0032 -0.478		
50-54			0.0083 1.463	-0.0014 -0.324		
NonBlack						
25-29		0.0161 2.386	0.0326 5.088		0.0348 5.365	0.0413 6.788
30-34	0.0230 4.502		0.0230 4.867	0.0337 6.025		
35-39	0.0172 4.782	0.0184 4.244		0.0388 9.101		
40-44	0.0119 3.900	0.0189 5.436	0.0228 5.108			
45-49	0.0151 5.477	0.0200 5.466	0.0244 5.530			
50-54			0.0140 4.173	0.0205 6.022		

Summary of regression coefficients and t-statistics from Appendix B Tables.

regression models that do not include years out of the labor force in the past five. We find that among white women, the returns to experience increase systematically in size and statistical significance over this period. For example, the estimated effect for women ages 35 to 39 increases from 0.017 in 1967 to 0.039 in 1983. And while these effects are quite variable for black women, among black women ages 30 to 34 and 35 to 39 in 1983, the estimated returns to experience are positive, statistically significant, and comparable in magnitude to those for white women in the same year.

B. Regressions Using Pooled Data

The comparison of coefficients shown in Table 31 suggests that more recent cohorts have been gaining more in terms of higher pay from an additional year of work experience than was true for earlier generations. However, it is possible that the effect observed is attributable to some other unspecified cohort effect. To estimate the intercohort change in the returns to experience more precisely we have estimated a model pooled across cohorts (and hence across survey groups) for specific age groups. These models focus on the first specification used in the Appendix B tables that includes only the cumulative level of experience and does not include years out of the labor force. All wages are expressed in constant dollars, deflated by the U.S. Bureau of Labor Statistics experimental Consumer Price Index (CPI-U-X1). For this pooled model, the cohorts are combined into five-year age groups. Dummy variables for the cohort and for the cohort interacted with experience are included as explanatory variables. Each cohort is considered relative to the earliest one relevant for that age group.

The results of these pooled models are shown in Table 32. Among white women the cohort dummy itself is negative in each case, and usually becomes

Table 32

The Effects of Experience and Other Factors on Log Wages

NON BLACK WOMEN

VARIABLE	Ages 25 to 29 PARAMETER ESTIMATE	T-STAT	Ages 30 to 34 PARAMETER ESTIMATE	T-STAT	Ages 35 to 39 PARAMETER ESTIMATE	T-STAT	Ages 40 to 44 PARAMETER ESTIMATE	T-STAT	Ages 45 to 49 PARAMETER ESTIMATE	T-STAT	Ages 50 to 54 PARAMETER ESTIMATE	T-STAT
INTERCEPT	0.5009	2.4010	0.5844	2.4170	1.2940	4.1630	1.1257	3.6250	1.7004	4.1150	1.5028	2.4900
AGE	0.0173	2.1660	0.0031	0.4210	-0.0130	-1.5760	-0.0092	-1.1320	-0.0214	-2.4710	-0.0170	-1.4820
EXPERIENCE	0.0153	2.6590	0.0198	3.8060	0.0146	3.7290	0.0135	4.7230	0.0163	6.0580	0.0161	5.7710
SCHOOLING	0.0591	10.8930	0.0783	17.6410	0.0740	15.3690	0.0685	14.5990	0.0749	14.3110	0.0713	10.3240
SOUTH	-0.0886	-4.2140	-0.0555	-2.6120	-0.1180	-4.8750	-0.0711	-2.8710	-0.0439	-1.6480	0.0079	0.2160
SMSA	0.1022	4.5500	0.1684	7.6520	0.1547	6.1660	0.1133	4.4890	0.1248	4.6910	0.1444	4.1130
NO CHILDREN	0.1154	2.6710	0.0779	2.2630	0.0427	1.1690	0.0508	1.3560	0.0134	0.3130	0.0583	1.0750
ONE CHILD	0.0773	1.7660	0.0785	2.1990	0.0147	0.3840	0.0326	0.8070	-0.0118	-0.2790	0.0202	0.3680
TWO CHILDREN	0.0126	0.2750	0.0315	0.9890	-0.0043	-0.1540	0.0473	1.7200	0.0228	0.7540	0.0267	0.6640
COHORT1	-	-	-	-	-	-	*	*	*	*	*	*
COHORT2	-	-	-	-	*	*	-0.0836	-1.3370	-0.1374	-1.6390	-0.0887	-0.9640
COHORT3	-	-	*	*	-0.1253	-1.7410	-0.2083	-3.0240	-0.1154	-1.5460	-	-
COHORT4	*	*	-0.0863	-1.3110	-0.3223	-4.8070	-	-	-	-	-	-
COHORT5	-0.1380	-3.2940	-0.0182	-2.5290	-	-	-	-	-	-	-	-
COHORT1*EXPERIENCE	-	-	-	-	-	-	*	*	*	*	*	*
COHORT2*EXPERIENCE	-	-	-	-	*	*	0.0039	0.9780	0.0041	1.0470	0.0040	0.9920
COHORT3*EXPERIENCE	-	-	*	*	0.0056	1.0290	0.0075	1.7680	0.0040	0.9510	-	-
COHORT4*EXPERIENCE	*	*	0.0045	0.6950	0.0232	4.5650	-	-	-	-	-	-
COHORT5*EXPERIENCE	0.0159	2.1520	0.0128	1.8420	-	-	-	-	-	-	-	-
Adjusted R-Square	0.1984		0.3091		0.3057		0.2916		0.2898		0.2794	
Sample Size	1291		1376		1119		980		951		578	
Dependent Mean	1.9366		1.9963		1.9618		1.9265		1.9465		1.9601	

BLACK WOMEN

VARIABLE	Ages 25 to 29 PARAMETER ESTIMATE	T-STAT	Ages 30 to 34 PARAMETER ESTIMATE	T-STAT	Ages 35 to 39 PARAMETER ESTIMATE	T-STAT	Ages 40 to 44 PARAMETER ESTIMATE	T-STAT	Ages 45 to 49 PARAMETER ESTIMATE	T-STAT	Ages 50 to 54 PARAMETER ESTIMATE	T-STAT
INTERCEPT	0.8976	2.8360	1.1683	3.3070	0.9403	1.8690	0.1517	0.2490	-0.1315	-0.1840	2.8659	3.0130
AGE	0.0057	0.5000	-0.0087	-0.7980	-0.0131	-0.9840	0.0068	0.4810	0.0172	1.1490	-0.0428	-2.3870
EXPERIENCE	0.0095	1.2740	-0.0008	-0.1350	0.0056	1.1690	0.0119	2.7260	0.0038	0.8990	0.0089	2.0010
SCHOOLING	0.0590	8.8360	0.0709	11.7530	0.1016	14.0930	0.0868	13.1010	0.0952	13.8610	0.0804	10.0870
SOUTH	-0.2540	-8.0400	-0.2345	-7.4690	-0.2651	-6.2120	-0.2397	-5.2690	-0.2915	-6.0450	-0.2367	-3.8820
SMSA	0.0878	2.4380	0.1883	5.1730	0.1769	3.9290	0.1930	4.1970	0.1707	3.4600	0.1853	2.9950
NO CHILDREN	0.0695	1.5350	-0.0131	-0.2940	-0.0117	-0.1820	0.0759	1.1920	-0.0098	-0.1370	0.0326	0.4080
ONE CHILD	0.0288	0.6670	-0.0348	-0.8490	0.0396	0.6730	-0.0329	-0.5380	-0.0827	-1.2980	0.0810	1.0370
TWO CHILDREN	0.0730	1.6900	0.0137	0.3640	-0.0665	-1.3660	0.1517	2.7810	0.0012	0.0210	0.0509	0.7240
COHORT1	-	-	-	-	-	-	-	*	-	*	*	*
COHORT2	-	-	-	-	*	*	0.3029	2.6060	0.2133	1.5850	0.1988	1.2270
COHORT3	-	-	*	*	0.2601	2.3550	0.4240	3.1140	0.0474	0.3650	-	-
COHORT4	*	*	-0.0508	-0.5690	-0.2342	-2.2530	-	-	-	-	-	-
COHORT5	-0.0110	-0.1780	-0.2103	-2.2500	-	-	-	-	-	-	-	-
COHORT1*EXPERIENCE	-	-	-	-	-	-	*	*	*	*	*	*
COHORT2*EXPERIENCE	-	-	-	-	*	*	-0.0111	-1.7490	-0.0002	-0.0420	-0.0079	-1.2860
COHORT3*EXPERIENCE	-	-	*	*	-0.0080	-1.0160	-0.0134	-1.8190	-0.0057	-0.7700	-	-
COHORT4*EXPERIENCE	*	*	0.0181	2.0460	0.0282	3.5320	-	-	-	-	-	-
COHORT5*EXPERIENCE	0.0061	0.6080	0.0333	3.7380	-	-	-	-	-	-	-	-
Adjusted R-Square	0.3367		0.4241		0.5043		0.4874		0.4995		0.4444	
Sample Size	509		568		437		397		357		225	
Dependent Mean	1.7925		1.8238		1.7045		1.6764		1.7647		1.7612	

Note: The years in which each cohort reached ages 25 to 29 is as follows:
C1 - 1952, C2 - 1957, C3 - 1960, C4 - 1973, C5 - 1978.
A star indicates the cohort which is the reference group in the specific regression.

more negative among higher order (i.e., more recent) cohorts. This implies that, all else equal, more recent cohorts of women start at lower wage levels, although not all of these cohort effects are statistically significant. Moreover, the effect of cohort interacted with experience is positive, and grows larger, indicating that women in more recent cohorts earn higher returns to investments in human capital than their earlier counterparts. For example, for white women 25 to 29, the effect of experience on earnings increases from 0.0153 for cohort 4 in 1978 by 0.0159 to 0.0302 for cohort 5 in 1983. The cohort differentials in the estimated return to experience are larger and more likely to be statistically significant when the cohorts are farther apart in time. Results based on experience defined since age 18, displayed in Table 33 accord with this findings.

Among black women younger than 40, these effects (when significant) imply similar gains in returns to experience as among white women. Yet, for black women 40 to 44, starting wages (all else equal) are <u>higher</u> for more recent cohorts, with returns to experience estimated at <u>lower</u> levels. Although this pattern holds for black women 35 to 39 in 1972 compared with those in 1967, by 1983, the return to experience differential becomes positive.

These results provide evidence that work related investments have increased from cohort to cohort among white women, although not necessarily for all cohorts of black women. The negative cohort effect among labor force entrants may be explained by human capital theory which suggests that on-the-job training would be funded in part through lower wages paid to the trainee (Becker, 1962). Since training is more likely to occur when workers begin their careers, an increase in on-the-job training from one generation to the

Table 33

Determinants of Log Wages Years of Experience Since Age 18

NON BLACK WOMEN

	Ages 25 to 29	
VARIABLE	PARAMETER ESTIMATE	T-STAT
INTERCEPT	0.4701	2.2860
AGE	0.0075	0.9860
EXPERIENCE	0.0339	4.8570
SCHOOLING	0.0617	13.4790
SOUTH	-0.0343	-1.7650
SMSA	0.1350	6.2620
NO CHILDREN	0.1413	2.8950
ONE CHILD	0.0969	1.9820
TWO CHILDREN	0.0667	1.3600
COHORT5	*	*
COHORT6	-0.0662	-1.2150
COHORT5*EXPERIENCE	*	*
COHORT6*EXPERIENCE	0.0101	1.2520
Adjusted R-Square	0.2239	
Sample Size	1953	
Dependent Mean	1.9165	

BLACK WOMEN

	Ages 25 to 29	
VARIABLE	PARAMETER ESTIMATE	T-STAT
INTERCEPT	0.8008	2.4930
AGE	0.0057	0.4820
EXPERIENCE	0.0200	1.9510
SCHOOLING	0.0648	9.2740
SOUTH	-0.1343	-4.4520
SMSA	0.0968	2.5840
NO CHILDREN	-0.0523	-1.0220
ONE CHILD	-0.0575	-1.1770
TWO CHILDREN	-0.0785	-1.5660
COHORT5	*	*
COHORT6	-0.2601	-3.5820
COHORT5*EXPERIENCE	*	*
COHORT6*EXPERIENCE	0.0344	2.8690
Adjusted R-Square	0.2542	
Sample Size	720	
Dependent Mean	1.7941	

*Designates the cohort that is the reference group for the regression.

next would be expected to generate a greater reduction in wages for new entrants among more recent cohorts. The subsequent steeper rise in earnings with experience reflects the return to the greater level of investment in work skills.

Of course, we cannot determine from this analysis the extent to which women or their employers are responsible for the increase in investment levels. For example, women may have initiated the change by applying for entry into management training programs or through choice of occupations where training is more commonplace. Employers, however, may have become more willing to invest in the training of women either because they have become less prejudiced, or because they are responding to the reduction in turnover and increased labor force attachment exhibited by the average woman, a factor that would have reduced the risk of training women. Since there is so much feedback between the labor force choices of women and the behavior of employers it is probable that both sides contributed to the increase in earnings effects of experience that we have estimated for more recent cohorts of women. The old pattern of flat age-earnings profiles for women -- the dead-end job syndrome -- finally appears to have been overcome, which bodes well for future narrowing of the gender gap in earnings.

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APPENDIX A

Table A-1

Determinants of Proportion of Years Worked, Ages 25-29

NON BLACK WOMEN

	Since Leaving School				Since Age 18			
	1973		1978		1978		1987	
VARIABLE	PARAMETER ESTIMATE	T-STAT	PARAMETER ESTIMATE	T-STAT	PARAMETER ESTIMATE	T-STAT	PARAMETER ESTIMATE	T-STAT
INTERCEPT	0.4020	2.0020	-0.2968	-1.8190	-0.0150	-0.091	-0.4553	-3.515
AGE	-0.0030	-0.4200	0.0072	1.3160	0.0080	1.446	0.0199	4.297
SCHOOLING	0.0006	0.1380	0.0295	8.4980	0.0014	0.405	0.0126	3.917
SOUTH	-0.0020	-0.0970	-0.0230	-1.4290	-0.0482	-2.957	-0.0104	-0.769
NEVER MARRIED	0.0472	1.3820	0.0049	0.2180	-0.0347	-1.529	-0.0664	-4.228
NO CHILDREN	0.3547	8.0060	0.5290	9.0330	0.5076	8.567	0.5603	13.737
ONE CHILD	0.2596	6.1310	0.3793	6.5310	0.3953	6.719	0.4263	10.568
TWO CHILDREN	0.0971	2.2960	0.1948	3.3580	0.2264	3.853	0.2684	6.656
THREE CHILDREN	0.0024	0.0490	0.1384	2.2550	0.1173	1.879	0.1203	2.686
Adjusted R-Square	0.1537		0.3675		0.2227		0.2688	
Sample Size	1204		1241		1193		1812	
Dependent Mean	0.5245		0.6563		0.5756		0.6356	

BLACK WOMEN

	Since Leaving School				Since Age 18			
	1973		1978		1978		1987	
VARIABLE	PARAMETER ESTIMATE	T-STAT	PARAMETER ESTIMATE	T-STAT	PARAMETER ESTIMATE	T-STAT	PARAMETER ESTIMATE	T-STAT
INTERCEPT	-0.1382	-0.3740	-1.3637	-4.4680	-1.0417	-3.699	-0.5480	-2.270
AGE	0.0069	0.5270	0.0483	4.5400	0.0388	3.945	0.0085	0.966
SCHOOLING	0.0244	3.1310	0.0310	5.6040	0.0184	3.618	0.0483	7.692
SOUTH	-0.0066	-0.1770	0.0534	1.8730	0.0217	0.812	0.0639	2.790
NEVER MARRIED	-0.0386	-0.8300	-0.0617	-1.9840	-0.0392	-1.370	-0.0925	-3.961
NO CHILDREN	0.1977	3.1140	0.4278	7.0450	0.3867	6.971	0.3295	5.814
ONE CHILD	0.2179	3.7450	0.3000	5.5430	0.3229	6.482	0.2526	4.549
TWO CHILDREN	0.1755	3.2110	0.1523	2.8200	0.2116	4.264	0.1647	2.921
THREE CHILDREN	0.0511	0.9210	0.0661	1.1390	0.1409	2.627	0.0505	0.822
Adjusted R-Square	0.0973		0.2622		0.1955		0.2458	
Sample Size	395		492		458		653	
Dependent Mean	0.4425		0.5561		0.4776		0.5042	

Table A-2

Determinants of Proportion of Years Worked Since Leaving School, Ages 30 to 34

NON BLACK WOMEN

	1967		1978		1983	
	PARAMETER		PARAMETER		PARAMETER	
VARIABLE	ESTIMATE	T-STAT	ESTIMATE	T-STAT	ESTIMATE	T-STAT
INTERCEPT	-0.0538	-0.2330	0.2861	1.4570	-0.2587	-1.3350
AGE	0.0055	0.7840	-0.0069	-1.1660	0.0137	2.3470
SCHOOLING	0.0148	3.5660	0.0212	5.9570	0.0111	3.2910
SOUTH	0.0173	0.8140	-0.0004	-0.0200	-0.0318	-1.8090
NEVER MARRIED	0.1171	2.3650	0.0499	1.3890	-0.0178	-0.6030
NO CHILDREN	0.4548	11.6270	0.4507	12.1560	0.4720	11.6440
ONE CHILD	0.3403	8.7650	0.3001	8.6680	0.3893	9.8390
TWO CHILDREN	0.1801	6.7870	0.1519	4.8620	0.2381	6.3300
THREE CHILDREN	0.0863	3.2720	0.0611	1.7900	0.1115	2.7260
Adjusted R-Square	0.3082		0.2999		0.2656	
Sample Size	747		1142		986	
Dependent Mean	0.4627		0.5549		0.6181	

BLACK WOMEN

	1967		1978		1983	
	PARAMETER		PARAMETER		PARAMETER	
VARIABLE	ESTIMATE	T-STAT	ESTIMATE	T-STAT	ESTIMATE	T-STAT
INTERCEPT	0.7216	1.4760	0.1345	0.3790	-1.1952	-3.3640
AGE	-0.0106	-0.7170	-0.0106	-0.9770	0.0379	3.5150
SCHOOLING	-0.0007	-0.0910	0.0496	8.3320	0.0317	5.8890
SOUTH	0.0644	1.4700	0.0650	2.0410	0.0351	1.2030
NEVER MARRIED	0.0438	0.6450	-0.0504	-1.1910	-0.0493	-1.4510
NO CHILDREN	0.2761	2.9370	0.3129	5.7860	0.2783	4.6430
ONE CHILD	0.3241	4.8380	0.2095	4.0790	0.2452	5.2470
TWO CHILDREN	0.1944	2.9860	0.2001	4.4290	0.1785	4.0530
THREE CHILDREN	0.0902	1.5900	0.0595	1.3690	0.0444	0.9180
Adjusted R-Square	0.1101		0.3418		0.2276	
Sample Size	262		357		389	
Dependent Mean	0.5161		0.5447		0.5640	

Table A-3

Determinants of Proportion of Years Worked Since Leaving School, Ages 35 to 39

NON BLACK WOMEN

VARIABLE	1967 PARAMETER ESTIMATE	1967 T-STAT	1972 PARAMETER ESTIMATE	1972 T-STAT	1983 PARAMETER ESTIMATE	1983 T-STAT
INTERCEPT	0.2782	1.0600	-0.2291	-0.8920	0.5904	2.4670
AGE	-0.0006	-0.0820	0.0098	1.4450	-0.0140	-2.2100
SCHOOLING	0.0061	1.4930	0.0153	3.5800	0.0217	5.9500
SOUTH	0.0049	0.2260	0.0292	1.4070	0.0008	0.0450
NEVER MARRIED	0.1710	2.9310	0.1383	2.5690	0.0837	1.9570
NO CHILDREN	0.3935	9.4230	0.4186	10.6220	0.4026	10.1470
ONE CHILD	0.2725	7.2740	0.3390	8.8740	0.2852	8.0540
TWO CHILDREN	0.1138	4.3460	0.1912	7.5790	0.1889	6.1760
THREE CHILDREN	0.0624	2.3470	0.0727	2.9310	0.1167	3.5910
Adjusted R-Square	0.2267		0.3032		0.2405	
Sample Size	767		687		952	
Dependent Mean	0.4476		0.4633		0.5640	

BLACK WOMEN

VARIABLE	1967 PARAMETER ESTIMATE	1967 T-STAT	1972 PARAMETER ESTIMATE	1972 T-STAT	1983 PARAMETER ESTIMATE	1983 T-STAT
INTERCEPT	-0.1943	-0.3520	0.3340	0.6200	0.2288	0.5130
AGE	0.0134	0.9340	-0.0020	-0.1430	-0.0113	-0.9510
SCHOOLING	0.0091	1.3430	0.0121	1.5490	0.0503	7.9230
SOUTH	0.0965	2.2300	0.0949	2.2890	0.0932	2.7310
NEVER MARRIED	0.0463	0.4360	-0.0081	-0.1140	-0.0428	0.9300
NO CHILDREN	0.2676	3.3050	0.2504	2.6900	0.2627	4.2170
ONE CHILD	0.2225	2.7780	0.2359	3.2410	0.1744	3.1410
TWO CHILDREN	0.1856	3.1660	0.1857	3.1020	0.1901	3.9520
THREE CHILDREN	0.0467	0.7250	0.1476	2.5990	0.0953	2.0830
Adjusted R-Square	0.0837		0.1235		0.3278	
Sample Size	278		224		285	
Dependent Mean	0.5306		0.5271		0.5685	

Table A-4

Determinants of Proportion of Years Worked Since Leaving School, Ages 40 to 44

NON BLACK WOMEN

	1967		1972		1977	
	PARAMETER		PARAMETER		PARAMETER	
VARIABLE	ESTIMATE	T-STAT	ESTIMATE	T-STAT	ESTIMATE	T-STAT
INTERCEPT	0.5212	1.8540	0.1583	0.5310	-0.1265	-0.4180
AGE	-0.0064	-0.9730	0.0021	0.3060	0.0066	0.9420
SCHOOLING	0.0083	2.2690	0.0087	2.0220	0.0162	3.6330
SOUTH	-0.0075	-0.3620	0.0079	0.3570	0.0299	1.3890
NEVER MARRIED	0.1799	2.9710	0.1499	2.5020	0.1385	2.4150
NO CHILDREN	0.3289	8.9310	0.3871	9.1540	0.3899	9.9830
ONE CHILD	0.1862	5.8220	0.2154	5.7070	0.3172	7.9280
TWO CHILDREN	0.1124	4.4690	0.1194	4.5480	0.1750	6.7360
THREE CHILDREN	0.0434	1.6310	0.0622	2.3580	0.0777	2.9860
Adjusted R-Square	0.1711		0.2100		0.2762	
Sample Size	859		701		634	
Dependent Mean	0.4442		0.4609		0.4927	

BLACK WOMEN

	1967		1972		1977	
	PARAMETER		PARAMETER		PARAMETER	
VARIABLE	ESTIMATE	T-STAT	ESTIMATE	T-STAT	ESTIMATE	T-STAT
INTERCEPT	1.1734	2.1330	0.3903	0.6650	0.6033	1.0260
AGE	-0.0184	-1.4310	-0.0034	-0.2490	-0.0089	-0.6470
SCHOOLING	0.0044	0.7630	0.0168	2.5580	0.0133	1.7580
SOUTH	0.1201	3.1180	0.0916	2.2880	0.1571	3.8240
NEVER MARRIED	0.0926	1.2100	-0.0068	-0.0620	-0.0188	-0.2510
NO CHILDREN	0.2260	4.1650	0.2693	3.4740	0.3196	3.2130
ONE CHILD	0.1693	3.2840	0.2412	3.2400	0.2365	3.0270
TWO CHILDREN	0.0826	1.4730	0.1735	3.1600	0.2165	3.7870
THREE CHILDREN	0.0162	0.2550	0.0806	1.2850	0.1895	3.2610
Adjusted R-Square	0.0921		0.1281		0.2042	
Sample Size	309		253		196	
Dependent Mean	0.6017		0.5482		0.5609	

Table A-5

Determinants of Proportion of Years Worked Since Leaving School, Ages 45 to 49

NON BLACK WOMEN

VARIABLE	1972 PARAMETER ESTIMATE	1972 T-STAT	1977 PARAMETER ESTIMATE	1977 T-STAT	1982 PARAMETER ESTIMATE	1982 T-STAT
INTERCEPT	0.4354	1.3500	0.2355	0.6950	-0.2705	-0.7230
AGE	-0.0043	-0.6410	0.0007	0.0990	0.0083	1.0550
SCHOOLING	0.0112	2.9130	0.0096	2.2430	0.0204	4.2780
SOUTH	0.0029	0.1380	0.0118	0.5300	0.0340	1.4230
NEVER MARRIED	0.2068	3.2230	0.1578	2.5470	0.1346	1.9770
NO CHILDREN	0.2826	7.5570	0.3569	8.3090	0.3431	7.4840
ONE CHILD	0.1872	5.8620	0.1866	4.8720	0.3008	6.8460
TWO CHILDREN	0.1086	4.2440	0.1071	3.9830	0.1863	6.3270
THREE CHILDREN	0.0522	1.9300	0.0543	2.0110	0.0942	3.2420
Adjusted R-Square	0.1562		0.1956		0.2465	
Sample Size	773		660		537	
Dependent Mean	0.4573		0.4866		0.5164	

BLACK WOMEN

VARIABLE	1972 PARAMETER ESTIMATE	1972 T-STAT	1977 PARAMETER ESTIMATE	1977 T-STAT	1982 PARAMETER ESTIMATE	1982 T-STAT
INTERCEPT	1.0005	1.6150	0.4060	0.6460	0.8464	1.1490
AGE	-0.0153	-1.1820	-0.0034	-0.2650	-0.0146	-0.9380
SCHOOLING	0.0131	2.1860	0.0186	2.9790	0.0203	2.5210
SOUTH	0.1457	3.8390	0.0711	1.8130	0.1938	4.1390
NEVER MARRIED	0.1247	1.5160	0.0481	0.3440	-0.0026	-0.0350
NO CHILDREN	0.2074	3.9020	0.3290	4.3350	0.2639	2.9850
ONE CHILD	0.1493	2.8760	0.2308	3.3380	0.1472	1.6370
TWO CHILDREN	0.1070	1.8550	0.1891	3.5820	0.2055	3.1790
THREE CHILDREN	0.0195	0.3140	0.1021	1.7530	0.1854	2.8570
Adjusted R-Square	0.1251		0.1796		0.2119	
Sample Size	273		232		159	
Dependent Mean	0.5870		0.5674		0.5884	

Table A-6

Determinants of Proportion of Years Worked Since Leaving School, Ages 50 to 54

NON BLACK WOMEN

VARIABLE	1977 PARAMETER ESTIMATE	1977 T-STAT	1982 PARAMETER ESTIMATE	1982 T-STAT
INTERCEPT	0.5587	1.5370	0.2169	0.5090
AGE	-0.0074	-1.0760	0.0011	0.1340
SCHOOLING	0.0182	4.6470	0.0124	2.5460
SOUTH	0.0208	0.9760	0.0170	0.6780
NEVER MARRIED	0.2213	3.3370	0.1745	2.3060
NO CHILDREN	0.2502	6.7170	0.2904	6.0570
ONE CHILD	0.1633	4.9910	0.1573	3.5020
TWO CHILDREN	0.0973	3.7230	0.0766	2.5730
THREE CHILDREN	0.0520	1.9110	0.0336	1.1050
Adjusted R-Square	0.1568		0.1385	
Sample Size	725		552	
Dependent Mean	0.4781		0.5057	

BLACK WOMEN

VARIABLE	1977 PARAMETER ESTIMATE	1977 T-STAT	1982 PARAMETER ESTIMATE	1982 T-STAT
INTERCEPT	1.2024	1.7180	0.3512	0.4810
AGE	-0.0184	-1.3890	-0.0028	-0.2030
SCHOOLING	0.0167	2.9530	0.0220	3.5020
SOUTH	0.1292	3.2390	0.0894	2.1270
NEVER MARRIED	0.0835	0.8750	0.1636	1.2420
NO CHILDREN	0.2130	3.8500	0.3092	4.0820
ONE CHILD	0.1664	3.0890	0.2343	3.2770
TWO CHILDREN	0.1376	2.2760	0.1802	3.3480
THREE CHILDREN	0.0321	0.5140	0.1360	2.2300
Adjusted R-Square	0.1329		0.2208	
Sample Size	244		200	
Dependent Mean	0.5859		0.5850	

APPENDIX B

Table B-1

Determinants of Log Wages, Ages 25-29

Years Since Age 18

NON BLACK WOMEN

VARIABLE	1978 (a) PARAMETER ESTIMATE	1978 (a) T-STAT	1987 (a) PARAMETER ESTIMATE	1987 (a) T-STAT	1978 (b) PARAMETER ESTIMATE	1978 (b) T-STAT	1987 (b) PARAMETER ESTIMATE	1987 (b) T-STAT
INTERCEPT	0.6887	2.414	0.2407	0.883	0.6648	2.339	0.1197	0.437
AGE	0.0110	1.008	0.0075	0.732	0.0186	1.656	0.0224	2.000
EXPERIENCE	0.0348	5.365	0.0413	6.788	0.0176	1.898	0.0138	1.327
SCHOOLING	0.0494	8.363	0.0710	10.884	0.0470	7.902	0.0691	10.602
SOUTH	-0.0390	-1.428	-0.0353	-1.346	-0.0429	-1.575	-0.0393	-1.503
SMSA	0.1324	4.587	0.1323	4.409	0.1331	4.630	0.1342	4.488
NO CHILDREN	0.0221	0.330	0.2069	3.117	0.0137	0.206	0.1775	2.659
ONE CHILD	-0.0058	-0.086	0.1569	2.379	-0.0084	-0.124	0.1341	2.029
TWO CHILDREN	-0.0389	-0.561	0.1243	1.892	-0.0327	-0.474	0.1167	1.750
YEARS OUT IN PAST FIVE					-0.0413	-2.603	-0.0555	-3.245
Adjusted R-Square	0.2154		0.2305		0.2219		0.2363	
Sample Size	694		1256		694		1256	
Dependent Mean	1.9667		1.9097		1.9667		1.9097	

BLACK WOMEN

VARIABLE	1978 (a) PARAMETER ESTIMATE	1978 (a) T-STAT	1987 (a) PARAMETER ESTIMATE	1987 (a) T-STAT	1978 (b) PARAMETER ESTIMATE	1978 (b) T-STAT	1987 (b) PARAMETER ESTIMATE	1987 (b) T-STAT
INTERCEPT	1.2542	2.719	0.2528	0.591	1.2543	2.715	0.1656	0.386
AGE	-0.0033	-0.195	0.0125	0.794	-0.0024	-0.138	0.0245	1.454
EXPERIENCE	0.0202	2.019	0.0522	6.041	0.0173	1.167	0.0250	1.511
SCHOOLING	0.0487	5.772	0.0781	7.112	0.0487	5.756	0.0778	7.098
SOUTH	-0.2112	-4.818	-0.1019	-2.503	-0.2120	-4.817	-0.1137	-2.771
SMSA	0.0830	1.675	0.0820	1.513	0.0837	1.684	0.0860	1.592
NO CHILDREN	0.0778	1.080	-0.1297	-1.843	0.0758	1.044	-0.1454	-2.058
ONE CHILD	0.0313	0.481	-0.1180	-1.710	0.0298	0.455	-0.1284	-1.861
TWO CHILDREN	0.0289	0.424	-0.1527	-2.171	0.0281	0.411	-0.1576	-2.245
YEARS OUT IN PAST FIVE					-0.0064	-0.269	-0.0493	-1.930
Adjusted R-Square	0.2843		0.2466		0.2819		0.2513	
Sample Size	276		445		276		445	
Dependent Mean	1.8626		1.7757		1.8626		1.7757	

Table B-2

Determinants of Log Wages, Ages 25-29

Years Since Leaving School

NON BLACK WOMEN

VARIABLE	1973 (a) PARAMETER ESTIMATE	1973 (a) T-STAT	1978 (a) PARAMETER ESTIMATE	1978 (a) T-STAT	1973 (b) PARAMETER ESTIMATE	1973 (b) T-STAT	1978 (b) PARAMETER ESTIMATE	1978 (b) T-STAT
INTERCEPT	0.5502	1.654	0.4279	1.560	0.8801	2.735	0.5111	1.863
AGE	0.0202	1.651	0.0158	1.459	0.0215	1.837	0.0212	1.946
EXPERIENCE	0.0161	2.386	0.0326	5.088	-0.0055	-0.774	0.0177	2.174
SCHOOLING	0.0515	5.478	0.0615	9.081	0.0457	5.066	0.0538	7.453
SOUTH	-0.1537	-4.525	-0.0427	-1.566	-0.1388	-4.258	-0.0447	-1.646
SMSA	0.0626	1.691	0.1299	4.495	0.0657	1.854	0.1308	4.550
NO CHILDREN	0.1784	2.917	0.0472	0.713	0.0550	0.900	0.0294	0.445
ONE CHILD	0.1181	1.922	0.0189	0.281	0.0556	0.934	0.0085	0.127
TWO CHILDREN	0.0095	0.148	-0.0362	-0.523	-0.0029	-0.047	-0.0313	-0.455
YEARS OUT IN PAST FIVE					-0.0974	-7.070	-0.0411	-2.930
Adjusted R-Square	0.1891		0.2114		0.2570		0.2198	
Sample Size	545		714		545		714	
Dependent Mean	1.9654		1.9700		1.9654		1.9700	

BLACK WOMEN

VARIABLE	1973 (a) PARAMETER ESTIMATE	1973 (a) T-STAT	1978 (a) PARAMETER ESTIMATE	1978 (a) T-STAT	1973 (b) PARAMETER ESTIMATE	1973 (b) T-STAT	1978 (b) PARAMETER ESTIMATE	1978 (b) T-STAT
INTERCEPT	0.6318	1.308	1.1502	2.678	1.0120	2.131	1.2028	2.765
AGE	0.0129	0.765	-0.0013	-0.079	0.0110	0.679	-0.0006	-0.037
EXPERIENCE	0.0082	1.026	0.0165	1.918	-0.0085	-0.971	0.0115	1.062
SCHOOLING	0.0690	6.297	0.0536	6.084	0.0577	5.285	0.0517	5.649
SOUTH	-0.3035	-5.944	-0.2144	-5.107	-0.3102	-6.307	-0.2150	-5.118
SMSA	0.1153	1.952	0.0713	1.483	0.1231	2.163	0.0723	1.500
NO CHILDREN	0.0200	0.305	0.1107	1.650	-0.0100	-0.157	0.1010	1.478
ONE CHILD	0.0436	0.634	0.0560	0.913	0.0171	0.257	0.0500	0.809
TWO CHILDREN	0.1079	1.752	0.0639	0.997	0.0775	1.296	0.0607	0.944
YEARS OUT IN PAST FIVE					-0.0737	-3.974	-0.0150	-0.780
Adjusted R-Square	0.3982		0.2798		0.4421		0.2788	
Sample Size	197		290		197		290	
Dependent Mean	1.7814		1.8589		1.7814		1.8589	

Table B-3

Determinants of Log Wages, Ages 30-34

NON BLACK WOMEN

VARIABLE	1967 (a) PARAMETER ESTIMATE	1967 (a) T-STAT	1978 (a) PARAMETER ESTIMATE	1978 (a) T-STAT	1983 (a) PARAMETER ESTIMATE	1983 (a) T-STAT	1978 (b) PARAMETER ESTIMATE	1978 (b) T-STAT	1983 (b) PARAMETER ESTIMATE	1983 (b) T-STAT
INTERCEPT	1.5088	3.006	0.0902	0.243	0.4898	1.272	0.3289	0.897	0.5128	1.344
AGE	-0.0271	-1.801	0.0184	1.559	-0.0007	-0.059	0.0229	1.975	0.0096	0.778
EXPERIENCE	0.0230	4.502	0.0230	4.867	0.0337	6.025	0.0070	1.242	0.0168	2.273
SCHOOLING	0.0745	8.709	0.0767	10.247	0.0788	11.100	0.0652	8.486	0.0703	9.442
SOUTH	-0.1296	-2.955	-0.0826	-2.478	-0.0009	-0.026	-0.0944	-2.885	-0.0074	-0.211
SMSA	0.1808	3.841	0.1391	4.077	0.1906	5.234	0.1401	4.192	0.1879	5.211
NO CHILDREN	0.0396	0.640	0.0954	1.720	0.0920	1.463	0.0474	0.859	0.0484	0.761
ONE CHILD	0.0210	0.287	0.1253	2.251	0.0739	1.139	0.0987	1.802	0.0395	0.608
TWO CHILDREN	0.0446	0.785	0.0478	0.969	0.0342	0.562	0.0363	0.750	0.0161	0.265
YEARS OUT IN PAST FIVE							-0.0691	-4.967	-0.0666	-3.479
Adjusted R-Square	0.3833		0.2849		0.2967		0.3142		0.3103	
Sample Size	239		564		573		564		573	
Dependent Mean	1.8370		2.0231		2.0545		2.0231		2.0545	

BLACK WOMEN

VARIABLE	1967 (a) PARAMETER ESTIMATE	1967 (a) T-STAT	1978 (a) PARAMETER ESTIMATE	1978 (a) T-STAT	1983 (a) PARAMETER ESTIMATE	1983 (a) T-STAT	1978 (b) PARAMETER ESTIMATE	1978 (b) T-STAT	1983 (b) PARAMETER ESTIMATE	1983 (b) T-STAT
INTERCEPT	1.2114	1.583	0.8047	1.406	1.2342	2.267	0.9393	1.673	1.1228	2.090
AGE	-0.0127	-0.530	0.0087	0.485	-0.0210	-1.223	0.0144	0.818	-0.0095	-0.545
EXPERIENCE	0.0005	0.074	0.0138	2.049	0.0351	5.058	-0.0011	-0.141	0.0213	2.565
SCHOOLING	0.0791	5.852	0.0617	5.872	0.0736	8.345	0.0514	4.762	0.0663	7.343
SOUTH	-0.3286	-4.343	-0.3096	-5.763	-0.1410	-3.097	-0.3182	-6.045	-0.1348	-3.005
SMSA	0.1098	1.369	0.1834	3.090	0.2237	3.898	0.1871	3.221	0.2356	4.162
NO CHILDREN	-0.2133	-1.680	-0.0022	-0.034	0.0255	0.348	-0.0343	-0.526	0.0076	0.105
ONE CHILD	0.0185	0.196	0.0084	0.110	-0.0626	-1.064	-0.0090	-0.120	-0.0811	-1.393
TWO CHILDREN	0.0913	0.950	0.0032	0.052	0.0214	0.375	0.0057	0.094	0.0160	0.286
YEARS OUT IN PAST FIVE							-0.0740	-3.111	-0.0780	-2.958
Adjusted R-Square	0.4615		0.3724		0.3739		0.3991		0.3935	
Sample Size	113		204		249		204		249	
Dependent Mean	1.5169		1.8918		1.9200		1.8918		1.9200	

Table B-4

Determinants of Log Wages, Age 35-39

NON BLACK WOMEN

VARIABLE	1967 (a) PARAMETER ESTIMATE	T-STAT	1972 (a) PARAMETER ESTIMATE	T-STAT	1983 (a) PARAMETER ESTIMATE	T-STAT	1972 (b) PARAMETER ESTIMATE	T-STAT	1983 (b) PARAMETER ESTIMATE	T-STAT
INTERCEPT	1.1105	2.196	0.9650	1.759	1.0867	2.246	1.0277	1.843	1.2735	2.656
AGE	-0.0083	-0.625	-0.0042	-0.284	-0.0184	-1.387	-0.0044	-0.299	-0.0150	-1.149
EXPERIENCE	0.0172	4.782	0.0184	4.244	0.0388	9.101	0.0164	3.135	0.0248	4.554
SCHOOLING	0.0683	9.210	0.0672	7.563	0.0793	10.158	0.0653	6.979	0.0713	8.979
SOUTH	-0.0636	-1.575	-0.0760	-1.746	-0.1617	-4.241	-0.0721	-1.640	-0.1556	-4.135
SMSA	0.0965	2.269	0.1421	3.088	0.1860	4.802	0.1464	3.147	0.1929	5.046
NO CHILDREN	-0.0232	-0.386	0.0595	0.877	0.0637	1.096	0.0634	0.929	0.0734	1.279
ONE CHILD	-0.0499	-0.698	0.0698	0.969	0.0247	0.423	0.0709	0.983	0.0382	0.662
TWO CHILDREN	-0.0283	-0.639	-0.0337	-0.689	0.0272	0.591	-0.0329	-0.672	0.0431	0.945
YEARS OUT IN THE PAST FIVE							-0.0114	-0.656	-0.0715	-4.064
Adjusted R-Square	0.3082		0.2763		0.3060		0.2749		0.3249	
Sample Size	263		292		565		292		565	
Dependent Mean	1.8281		1.9307		2.0270		1.9307		2.0270	

BLACK WOMEN

VARIABLE	1967 (a) PARAMETER ESTIMATE	T-STAT	1972 (a) PARAMETER ESTIMATE	T-STAT	1983 (a) PARAMETER ESTIMATE	T-STAT	1972 (b) PARAMETER ESTIMATE	T-STAT	1983 (b) PARAMETER ESTIMATE	T-STAT
INTERCEPT	0.9418	1.188	0.7013	0.582	1.7197	2.431	1.1126	0.940	1.7759	2.528
AGE	-0.0119	-0.564	-0.0049	-0.150	-0.0331	-1.782	-0.0052	-0.164	-0.0289	-1.554
EXPERIENCE	0.0025	0.533	-0.0033	-0.451	0.0352	5.844	-0.0092	-1.236	0.0267	3.561
SCHOOLING	0.0979	8.837	0.1215	7.623	0.0819	7.377	0.1062	6.394	0.0757	6.592
SOUTH	-0.3772	-5.419	-0.2608	-2.687	-0.1935	-3.247	-0.3241	-3.319	-0.2132	-3.551
SMSA	0.1623	2.145	0.1817	1.894	0.1168	1.768	0.1337	1.403	0.1349	2.038
NO CHILDREN	0.1959	1.759	-0.1062	-0.707	-0.0635	-0.736	-0.1439	-0.979	-0.0777	-0.904
ONE CHILD	-0.0675	-0.571	0.0822	0.613	0.0239	0.318	0.1144	0.872	0.0191	0.257
TWO CHILDREN	0.0903	1.069	-0.0490	-0.418	-0.1761	-2.689	-0.0279	-0.243	-0.1578	-2.402
YEARS OUT IN PAST FIVE							-0.0887	-2.582	-0.0589	-1.914
Adjusted R-Square	0.5527		0.4849		0.4228		0.5115		0.4314	
Sample Size	138		113		185		113		185	
Dependent Mean	1.4559		1.7498		1.8415		1.7498		1.8415	

Table B-5

Determinants of Log Wages, Ages 40-44

NON BLACK WOMEN

VARIABLE	1967 (a) PARAMETER ESTIMATE	T-STAT	1972 (a) PARAMETER ESTIMATE	T-STAT	1977 (a) PARAMETER ESTIMATE	T-STAT	1972 (b) PARAMETER ESTIMATE	T-STAT	1977 (b) PARAMETER ESTIMATE	T-STAT
INTERCEPT	-0.0517	-0.876	2.1714	3.647	2.0327	2.765	2.3477	3.991	1.9586	2.728
AGE	0.0307	2.285	-0.0305	-2.198	-0.0355	-2.031	-0.0304	-2.222	-0.0287	-1.669
EXPERIENCE	0.0119	3.900	0.0189	5.436	0.0228	5.108	0.0133	3.497	0.0144	2.895
SCHOOLING	0.0668	8.727	0.0610	7.376	0.0805	7.615	0.0567	6.869	0.0747	7.137
SOUTH	-0.0814	-1.838	-0.0708	-1.654	-0.0911	-1.778	-0.0751	-1.782	-0.0743	-1.479
SMSA	0.1147	2.577	0.1119	2.644	0.1125	2.156	0.1128	2.707	0.1498	2.877
NO CHILDREN	0.1279	2.116	0.0017	0.024	0.0049	0.066	0.0292	0.429	0.0482	0.655
ONE CHILD	-0.0035	-0.058	0.1098	1.365	0.0857	0.953	0.1192	1.504	0.0891	1.015
TWO CHILDREN	0.1240	2.552	0.0279	0.616	-0.0080	-0.140	0.0253	0.567	0.0020	0.035
YEARS OUT IN PAST FIVE							-0.0547	-3.393	-0.0708	-3.470
Adjusted R-Square	0.3231		0.2575		0.3134		0.2807		0.3453	
Sample Size	329		336		235		336		235	
Dependent Mean	1.8152		1.9589		1.9780		1.9589		1.9780	

BLACK WOMEN

VARIABLE	1967 (a) PARAMETER ESTIMATE	T-STAT	1972 (a) PARAMETER ESTIMATE	T-STAT	1977 (a) PARAMETER ESTIMATE	T-STAT	1972 (b) PARAMETER ESTIMATE	T-STAT	1977 (b) PARAMETER ESTIMATE	T-STAT
INTERCEPT	0.7106	0.700	0.2012	0.205	-1.8349	-1.451	0.2041	0.206	-1.9695	-1.538
AGE	-0.0116	-0.490	0.0140	0.614	0.0704	2.338	0.0138	0.597	0.0722	2.382
EXPERIENCE	0.0151	3.188	0.0007	0.151	-0.0142	-2.159	0.0008	0.157	-0.0136	-2.061
SCHOOLING	0.0970	9.508	0.0874	7.985	0.0702	4.644	0.0875	7.730	0.0728	4.679
SOUTH	-0.2783	-3.629	-0.3346	-4.547	-0.0599	-0.624	-0.3350	-4.516	-0.0479	-0.491
SMSA	0.1305	1.653	0.2537	3.439	0.3330	3.677	0.2539	3.425	0.3427	3.735
NO CHILDREN	0.0678	0.731	0.2011	1.752	-0.1349	-0.912	0.2014	1.746	-0.1347	-0.908
ONE CHILD	-0.0250	-0.298	-0.1811	-1.378	0.0711	0.518	-0.1810	-1.372	0.0646	0.468
TWO CHILDREN	0.2883	2.963	0.0825	0.970	0.0611	0.593	0.0826	0.966	0.0511	0.491
YEARS OUT IN PAST FIVE							0.0015	0.053	0.0284	0.738
Adjusted R-Square	0.5141		0.5104		0.4484		0.5065		0.4453	
Sample Size	152		136		91		136		91	
Dependent Mean	1.4533		1.7127		1.8804		1.7127		1.8804	

Table B-6

Determinants of Log Wages, Ages 45-49

NON BLACK WOMEN

VARIABLE	1972 (a) PARAMETER ESTIMATE	1972 (a) T-STAT	1977 (a) PARAMETER ESTIMATE	1977 (a) T-STAT	1982 (a) PARAMETER ESTIMATE	1982 (a) T-STAT	1972 (b) PARAMETER ESTIMATE	1972 (b) T-STAT	1977 (b) PARAMETER ESTIMATE	1977 (b) T-STAT	1982 (b) PARAMETER ESTIMATE	1982 (b) T-STAT
INTERCEPT	0.9644	1.534	1.7803	2.460	2.8826	3.239	1.2359	1.982	1.7942	2.482	3.[illegible]	3.485
AGE	-0.0041	-0.308	-0.0217	-1.426	-0.0549	-2.886	-0.0061	-0.470	-0.0208	-1.368	-0.05[illegible]	-2.890
EXPERIENCE	0.0151	5.477	0.0200	5.466	0.0244	5.530	0.0109	3.695	0.0183	4.708	0.0177	3.686
SCHOOLING	0.0751	9.533	0.0634	6.968	0.0876	7.521	0.0702	8.897	0.0618	6.743	0.0830	7.206
SOUTH	-0.0814	-1.918	-0.0705	-1.504	-0.0331	-0.591	-0.0884	-2.114	-0.0701	-1.497	-0.0314	-0.572
SMSA	0.0596	1.431	0.1338	2.856	0.1830	3.175	0.0631	1.538	0.1364	2.911	0.1974	3.479
NO CHILDREN	0.0702	1.095	0.1245	1.671	-0.1614	-1.754	0.0883	1.395	0.1318	1.766	-0.1226	-1.346
ONE CHILD	0.0212	0.360	0.0485	0.614	-0.0909	-0.929	0.0125	0.216	0.0532	0.673	-0.0596	-0.618
TWO CHILDREN	0.0325	0.694	0.0425	0.831	0.0446	0.672	0.0407	0.881	0.0426	0.833	0.0551	0.844
YEARS OUT IN PAST FIVE							-0.0538	-3.523	-0.0362	-1.247	-0.0855	-3.279
Adjusted R-Square	0.3264		0.3152		0.2730		0.3473		0.3168		0.3001	
Sample Size	367		250		261		367		250		261	
Dependent Mean	1.9365		2.0259		1.9938		1.9365		2.0259		1.9938	

BLACK WOMEN

VARIABLE	1972 (a) PARAMETER ESTIMATE	1972 (a) T-STAT	1977 (a) PARAMETER ESTIMATE	1977 (a) T-STAT	1982 (a) PARAMETER ESTIMATE	1982 (a) T-STAT	1972 (b) PARAMETER ESTIMATE	1972 (b) T-STAT	1977 (b) PARAMETER ESTIMATE	1977 (b) T-STAT	1982 (b) PARAMETER ESTIMATE	1982 (b) T-STAT
INTERCEPT	0.7685	[illegible]584	0.0083	0.008	-0.5373	-0.339	0.4251	0.321	0.0784	0.071	-0.8619	-0.571
AGE	-0.0021	[illegible].075	[illegible].0167	0.744	0.0344	1.016	0.0007	0.024	0.0163	0.722	0.0470	1.444
EXPERIENCE	0.0048	0.975	[illegible].0016	0.346	-0.0032	-0.[illegible]	0.0088	1.604	0.0005	0.109	-0.0114	-1.645
SCHOOLING	0.0964	8.627	1045	9.486	0.0806	4.	0.1040	8.579	0.1022	8.453	0.0772	4.498
SOUTH	-0.3126	-3.530	[illegible]829	-5.002	-0.2153	-2.06[illegible]	-0.3120	-3.544	-0.3850	-5.002	-0.2327	-2.337
SMSA	0.1652	1.769	0.1382	1.890	0.2007	1.927	0.1716	1.846	0.1372	1.869	0.2265	2.276
NO CHILDREN	-0.0482	-0.407	-0.00[illegible]	-0.069	0.0652	0.413	-0.0557	-0.473	0.0012	0.011	0.0340	0.226
ONE CHILD	-0.0839	-0.889	-0.010[illegible]	-0.082	-0.0597	-0.[illegible]	-0.0823	-0.877	0.0094	0.089	-0.0587	-0.361
TWO CHILDREN	0.0719	0.648	0.0096	0.115	-0.1622	-1.35[illegible]	0.0758	0.686	0.0217	0.248	-0.1938	-1.698
YEARS OUT IN PAST FIVE							0.0624	1.566	-0.0170	-0.470	-0.3006	-2.988
Adjusted R-Square	0.4538		0.6001		0.3822		0.4599		0.5970		0.4406	
Sample Size	137		109		85		137		109		85	
Dependent Mean	1.6938		1.8274		1.9101		1.6938		1.8274		1.9101	

Table B-7

Determinants of Log Wages, Ages 50-54

NON BLACK WOMEN

VARIABLE	1977 (a) PARAMETER ESTIMATE	T-STAT	1982 (a) PARAMETER ESTIMATE	T-STAT	1977 (b) PARAMETER ESTIMATE	T-STAT	1982 (b) PARAMETER ESTIMATE	T-STAT
INTERCEPT	1.8969	2.179	2.0785	2.257	1.9875	2.279	2.2878	2.510
AGE	-0.0240	-1.445	-0.0313	-1.815	-0.0247	-1.490	-0.0322	-1.893
EXPERIENCE	0.0140	4.173	0.0205	6.027	0.0124	3.488	0.0158	4.204
SCHOOLING	0.0820	9.159	0.0742	6.256	0.0809	9.002	0.0710	6.031
SOUTH	-0.0413	-0.762	0.0601	1.078	-0.0410	-0.757	0.0483	0.876
SMSA	0.0961	1.891	0.2062	3.910	0.0960	1.892	0.2175	4.168
NO CHILDREN	0.0196	0.269	0.0681	0.791	0.0315	0.431	0.1033	1.203
ONE CHILD	0.0175	0.234	0.0168	0.178	0.0240	0.320	0.0306	0.327
TWO CHILDREN	0.0103	0.168	-0.0207	-0.346	0.0128	0.210	-0.0141	-0.238
YEARS OUT IN PAST FIVE					-0.0372	-1.269	-0.0767	-2.758
Adjusted R-Square	0.3408		0.2795		0.3424		0.2991	
Sample Size	257		246		257		246	
Dependent Mean	2.0275		1.9852		2.0275		1.9852	

BLACK WOMEN

VARIABLE	1977 (a) PARAMETER ESTIMATE	T-STAT	1982 (a) PARAMETER ESTIMATE	T-STAT	1977 (b) PARAMETER ESTIMATE	T-STAT	1982 (b) PARAMETER ESTIMATE	T-STAT
INTERCEPT	2.7874	1.916	2.8134	2.254	2.7757	1.881	2.6995	2.256
AGE	-0.0416	-1.522	-0.0335	-1.424	-0.0414	-1.500	-0.0288	-1.276
EXPERIENCE	0.0083	1.463	-0.0014	-0.324	0.0084	1.443	-0.0057	-1.322
SCHOOLING	0.0842	7.66	0.0732	6.231	0.0843	7.562	0.0715	6.345
SOUTH	-0.2028	-2.187	-0.3381	-4.106	-0.2031	-2.176	-0.3271	-4.143
SMSA	0.1849	1.928	0.1172	1.477	0.1844	1.906	0.1453	1.898
NO CHILDREN	-0.0227	-0.196	0.1333	1.129	-0.0222	-0.189	0.1281	1.132
ONE CHILD	-0.0487	-0.468	0.3489	2.663	-0.0486	-0.465	0.3690	2.935
TWO CHILDREN	0.0466	0.418	0.0943	1.106	0.0471	0.419	0.1025	1.253
YEARS OUT IN PAST FIVE					0.0028	0.060	-0.1196	-3.035
Adjusted R-Square	0.4504		0.5015		0.4449		0.5423	
Sample Size	108		101		108		101	
Dependent Mean	1.7849		1.7532		1.7849		1.7532	

END

05/31/95